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ABSTRACT

The purpose of this manual is to provide measurement specialists and educational evaluators with procedures for identifying the key testing issues of importance to citizen groups and aid them in adapting materials for use in workshops with these groups. The manual is divided into five sections to assist the trainer in developing all aspects of a successful workshop. These sections are: planning the workshop, sample workshop agendas, workshop presentation guides, sample letters, and resources. The training procedures outlined herein are intended to provide workshop suggestions for trainers who already have a strong background in testing. For example, presentation outlines are provided which contain only the main points to be covered on a topic. To use these outlines, trainers must be able to elaborate on each point. The manual provides a way of organizing important information about testing and stresses the main points to be covered. But, the trainer must bring his or her own knowledge of testing and measurement to the material to present sound workshops. (Author/RL)

Training Citizen Groups on Educational Testing Issues: A Trainer's Manual

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PREFACE

This training manual is the result of work supported by the National Institute of Education in direct response to recommendations from the National Conference on Achievement Testing and the Basic Skills. Held in March, 1978, this conference brought together over 300 educators, educational administrators, testing experts, local state and Federal government officials and representatives of parents' and teachers' organizations to discuss two questions: How can tests be used more effectively to promote learning, and what should be the federal government's role in achievement testing?

At this conference, then Assistant Secretary for Education, Mary F. Berry, described her idea of an appropriate federal role in testing. She stressed the need to "provide information, support and technical assistance to states, districts and private groups to help them develop and use tests that say something meaningful about individual students and promote quality in education."

The conference participants generally agreed on the following general points concerning the appropriate role of testing in education:

- Both educational testing and accountability are necessary.
- Testing is a useful tool for some purposes.
- Testing should reflect, not determine, educational goals.
- Rather than asking how we can create better tests, we should ask how we can use tests better to diagnose needs and plan instructional interventions.

The conference participants also agreed that the appropriate federal role in testing should be to:

- Encourage awareness of the broad view of education in our society--a view in which testing is only a part.
- Promote appropriate expectations about the uses and limitations of tests and testing.
- Avoid telling state and local agencies what to do about tests, testing standards, performance criteria, testing techniques and what should be learned.
- Avoid the implementation of a national curriculum or a national test of achievement.

Immediately following the conference, then Secretary of Health, Education and Welfare, Joseph A. Califano, responded to these conference recommendations by calling for the National Institute of Education to conduct four types of activities. These were (1) to provide information and referral services about achievement tests; (2) to conduct regional conferences similar to the national conference; (3) to train teachers,

administrators and parents in the use of achievement tests; and (4) to conduct research to improve testing.

In response to these recommendations, NIE established an Office of Testing, Assessment and Evaluation to conduct activities related to the improvement of educational testing. These activities, as suggested by the National Conference, include developing and disseminating easily-understood materials on testing, conducting conferences and workshops designed to improve the skills of teachers and parents in the use of achievement tests, and supporting research on the appropriate uses and limits of tests, the impact of testing programs and ways to increase the utility of test information for instructional decisions. This project and the resulting materials arose out of these priorities.

During the project, five workshops on key testing issues were held around the country for journalists, legislators, lawyers, parents and school board members. Each workshop was arranged in collaboration with a cosponsoring organization which worked closely with each group. Summary information on these events is presented below.

Group	Co-sponsor	Date, Location	Participation
Parents	Region III, National Coalition of Title I Parents	April Baltimore, MD	90 parents
Legislators	Education Committee Ohio House of Representatives	June Columbus, OH	25 legislators
Board of Education members	Ohio School Boards Association	June Columbus, OH	60 board members 25 school administrators
Board of Education Journalists	California State Department of Education	July San Francisco	20 board members 10 journalists
Lawyers	Center for Law and Education	September Oakland, CA	80 lawyers, paralegals, and their clients

Project staff included: Susan Rath, Nero and Associates, responsible for workshop coordination including all preparatory communication and facilities arrangements; Beverly Anderson and Richard Stiggins, Northwest Regional Educational Laboratory, material developers and trainers; and, David Gordon, California State Department of Education, also a developer and trainer.

This manual is intended to provide users with guidance in the development and presentation of similar workshops. It includes both guidelines and activities checklists, as well as background information on project experiences that may be helpful to those planning similar events.

Introduction

PURPOSE AND INTENDED USERS OF THE MANUAL

Measurement specialists and educational evaluators are increasingly being called upon to provide information to citizen groups on educational testing issues. Frequently, the materials available to citizens are focused only on test score interpretation and/or are written in such technical terms that the information is understandable only by educators or testing specialists and is, therefore, of limited value to citizens.

The purpose of this manual, therefore, is to provide measurement specialists and educational evaluators with procedures for identifying the key testing issues of importance to citizen groups and aid them in adapting materials for use in workshops with these groups. Two accompanying booklets, A Parent's Guide to Testing in the Schools, and Educational Testing Facts & Issues: A Layperson's Guide to Testing in the Schools, are focused on issues currently of interest to citizen groups and written in non-technical language. These booklets are intended to be used as a supplement to the materials presented in this manual.

The training procedures outlined herein are intended to provide workshop suggestions for trainers who already have a strong background in testing. For example, presentation outlines are provided which contain only the main points to be covered on a topic. To use these outlines, trainers must be able to elaborate on each point. The manual provides a way of organizing important information about testing and stresses the main points to be covered. But, the trainer must bring his or her own knowledge of testing and measurement to the material to present sound workshops.

To effectively conduct the workshops, trainers should have the following qualifications:

- Extensive knowledge of testing and measurement through appropriate academic and professional training and experience
- Ability to transform "technical" issues into language readily understood by laypersons
- Practical experience in using and interpreting test scores in a "real life" context
- Knowledge of and experience in working with large and small groups
- A genuine concern for and commitment to disseminating information about testing to citizen groups

HOW TO USE THE MANUAL

This manual does not provide rigid procedures or agendas for citizen group workshops. Rather, it provides a flexible set of aids on how to schedule and arrange workshops, build the agenda, select appropriate trainers and prepare presentations.

The manual is divided into five sections to assist the trainer in developing all aspects of a successful workshop. These sections are: planning the workshop, sample workshop agendas, workshop presentation guides, sample letters, and resources.

The user is encouraged to adapt materials provided to meet the needs and conditions of specific groups and situations. The notebook format of the manual is intended to encourage users to insert additional materials and update the manual as new information becomes available or as they develop their own workshop activities.

Planning the Workshop

Three critical aspects of planning the workshops are discussed in this section. Guidelines are offered for arranging the workshop, preparing the agenda, and developing workshop materials. Specific and detailed checklists of activities are presented. As the workshop presenter and sponsor work together to plan the event, the presenter should be flexible and sensitive to the specific needs of those who are to participate in the workshop.

At times, these checklists may seem overly detailed. However, the reader should understand that the goal in this section is not to teach others how to run a workshop. Those using these materials will probably be very experienced at that. Rather, the goal is to provide lists of tasks to reduce the chance that something important may be overlooked.

CHECKLIST:
ARRANGING THE WORKSHOP

Listed below are the steps that can be taken to complete arrangements for a citizen's group workshop on testing. In the process of conducting the workshop, the staff of this project found certain procedures, etc. particularly helpful. Those ideas are included here as HELPFUL HINTS.

_____ 1. Contact group representative(s) by phone to assess interest.

_____ 2. Send formal letters and follow-up materials as required.

_____ 3. Maintain contact by telephone and letter.

HELPFUL HINT: Be prepared to duplicate your efforts. More than one decision-maker is usually involved. Clarification and further information are often needed.

_____ 4. Receive formal acceptance of their sponsorship.

HELPFUL HINT: Be sure the person accepting the invitation has the authority to do so. Obtain a letter of agreement.

HELPFUL HINT: Be sure that necessary financial or time commitments of the organization are clear. They can vary greatly from organization to organization. Be certain that you and the sponsoring organization understand the roles to be played. Who will provide lunch? Issue invitations? etc.

_____ 5. Reach agreement with the group representative on:

_____ time (date, hours)
_____ location (city, state)
_____ space (hotel or other building)
_____ number of expected participants
_____ background of participant

HELPFUL HINT: Although a workshop may be planned for, say, school board members, persons in related fields of endeavor may attend (e.g., school administrators). Ask about this in advance and be sure the agenda accommodates all groups.

_____ 6. Contact the person responsible for arrangements at the hotel or other facility, depending on where the session will be held. Make arrangements for:

_____ meeting rooms

HELPFUL HINT: Carefully specify the room arrangements needed. For example, for large group sessions you may want chairs arranged in rows, but for small group sessions, you may want people seated at tables. You may prefer to have people seated around tables whenever possible to promote

interaction and to allow working space. This often becomes impractical if the group consists of over 50 people.

_____ meals, coffee breaks

HELPFUL HINT: Whenever possible, arrange to have refreshments and lunch provided in close proximity to the meeting rooms. When participants split up for meals or breaks, it is very difficult to reconvene on schedule.

_____ equipment (e.g., microphones, overhead projectors, blackboard)

_____ 7. Confirm hotel arrangements.

HELPFUL HINT: If possible, have someone visit the meeting location to be sure the facilities are acceptable. Also arrange to have someone arrive at the location several hours in advance to make sure that the arrangements have been carried out.

_____8. Arrange for lodging.

HELPFUL HINT: Out of town participants may need special lodging arrangements. Check with these participants regarding their needs when they register in advance of the session. (see point 10 below)

_____ 9. Send workshop agenda to participants. (See samples, next section).

HELPFUL HINT: Invitations may be sent by host group and/or trainer. Work with the co-sponsor to determine the best method of involving the participants in the workshop.

HELPFUL HINT: If host group sends agenda, provide them with a sample letter or review the letter before it is mailed. Be sure the purpose, agenda, time and location are clearly specified.

HELPFUL HINT: Be prepared for last minute changes. Make contingency plans, if possible.

_____10. Arrange registration plans and procedures.

HELPFUL HINT: Advanced registration is always preferable to onsite registration as it provides trainers with information on the amount of materials needed and the kinds of facilities arrangements to be made.

CHECKLIST:
BUILDING THE AGENDA AND
PREPARING WORKSHOP MATERIALS

The steps to plan workshops activities should be carried out carefully and should allow for input from all interested parties. The sole objective of this planning sequence is to learn and plan to meet the needs of the client group.

_____ 1. Contact people in your locality similar to those who will be attending the workshop to determine what questions they have about educational testing.

HELPFUL HINT: The people you contact in this case may not be people who will actually attend. For example, you may contact school board members in your state to prepare for a workshop you are conducting in another state. However, such people can be a valuable, accessible source of information.

_____ 2. Once a tentative agreement has been reached on who and how many participants will attend and the length of sessions, build a tentative agenda.

HELPFUL HINT: Be sure the agenda allows for variation in format, gives priority to interests of those who will be attending, accounts for differences in participants and reflects the group's past experience with testing.

_____ 3. Send a tentative agenda to the group representative for review.

HELPFUL HINT: Send along a list of specific questions and concerns for the representative's reaction. Be sure to highlight topics or format matters about which you are uncertain.

_____ 4. Identify trainers and gather resource materials to be used in preparing presentations. (See sections entitled "Workshop Presentation Guides" and "Resources".)

_____ 5. Have meeting of all presenters to ensure compatibility of presentations.

HELPFUL HINT: Have presenters bring draft outlines of their presentations, handouts, transparencies or other materials for critique by other presenters.

HELPFUL HINT: The use of at least two presenters is strongly encouraged. The balance of perspectives and variation in style will greatly enhance the workshop quality.

_____ 6. Conduct a pilot version of the workshop if substantial modifications are made in materials presented in this manual.

HELPFUL HINT: Although it is best to conduct a pilot version of the complete workshop with participants similar to the intended audience, this is not always feasible. In such cases, it is better to conduct slightly modified pilot versions rather than to neglect the trial run.

_____ 7. Revise materials and agenda as needed before actual presentations.

_____ 8. Duplicate materials, prepare overhead transparencies and other training aids in preparation for actual presentation.

CHECKLIST:
PROVIDING PARTICIPANT MATERIALS

_____ 1. Have name tags available when participants arrive.

HELPFUL HINT: Provide fairly large name tags. Ask that participants print at least the first name in large letters so presenters and other participants can address one another by name.

_____ 2. Provide each participant with a folder of materials, including:

_____ pencil
_____ note pad
_____ agenda
_____ workshop evaluation form
_____ background or reference materials (perhaps including Layperson's Guide and/or Parent's Guide)

HELPFUL HINT: Distribute special materials as they are covered rather than including them in the participant folder. In this way, attention will not be diverted from presentations to the reading material.

_____ 3. Provide a display table with resource materials on te..ng for participants to review during breaks.

HELPFUL HINT: Provide as much clear information as possible on where to obtain copies of materials on display.

Sample Workshop Agendas

This section contains agendas for the five training sessions offered during the project. They are meant to be illustrative of the kinds of agendas that can result from careful planning. Included are:

- a 1-1/2 hour parents' workshop
- a 2-1/2 hour legislators' workshop
- an all day school board members' workshop
- an all day journalists' workshop
- an all day lawyers' workshop

These agendas were established according to the procedures described in the previous section. Although these agendas specify critical topics and should be helpful in planning a workshop for similar groups, the samples should not simply be adopted as written. Rather, the procedures described earlier for building an agenda should be followed to ensure that the topics and format are appropriate for your particular group.

Outlines for presentations and simulations referenced in the agenda are provided in the section that follows these samples.

AGENDA FOR A PARENTS' WORKSHOP ON EDUCATIONAL TESTING FACTS AND ISSUES

Staff: Two presenters
Time: 1 1/2 hour workshop

Beginning Time	Topic	
10:00 a.m.	Introductions, Agenda Review and Priority Setting*	
10:05	Overview of the Uses and Types of Tests in the Public Schools	
10:15	Priority Topic #1:	Are tests really sensitive to cultural differences among students?
10:25	Priority Topic #2:	What questions and issues should I raise with my children's teacher and principal about testing?
10:35	Priority Topic #3:	What can parents do to help the child who is extremely nervous about tests?
10:45	Priority Topic #4:	Can parents help their children prepare for tests?
10:55	Priority Topic #5:	How can one tell if a test is a good test?
11:05	Priority Topic #6:	How can parents help students deal with test scores?
11:15	Summary and Workshop Evaluation	
11:30	Adjourn	

*During the project workshop for parents, participants were given the Priority Checklist which appears on the following page and asked to put a check next to the six topics which would be of greatest interest. Results were tallied during the presentation of the Overview of Uses and Types of Tests. The six topics were then put in priority sequence according to participant interest. See the "Workshop Presentation Guides" section of this manual and the booklets entitled A Parent's Guide to Testing in the Schools and Educational Testing Facts and Issues: A Layperson's Guide to Testing in the Schools for content on each topic.

SAMPLE
CHECKLIST

SEMINAR ON TESTING FOR PARENTS:

PRIORITY TOPICS FOR DISCUSSION

Please check the six topics that are of greatest interest to you.

_____ 1. What are tests and why are they used?

_____ 2. How are tests used?

_____ 3. How many different kinds of tests are there?

_____ 4. What do different test scores mean?

_____ 5. Are tests really sensitive to cultural differences among students?

_____ 6. How can you tell if a test is a good test?

_____ 7. Can parents help their children prepare for tests?

_____ 8. What can parents do to help the child who is extremely nervous about tests?

_____ 9. How can parents help students deal with test scores?

_____10. What questions and issues should I raise with my children's teacher and principal about testing?

AGENDA FOR A LEGISLATORS' WORKSHOP ON
EDUCATIONAL TESTING FACTS AND ISSUES*

Staff: Three presenters
Time: 2 1/2 hour workshop

Beginning Time	Topic
7:30 p.m.	Introductions, Agenda Review, and Priority Setting**
7:35	Overview of Minimum Competency Testing Status
7:50	Priority Topic #1: What are the advantages and disadvantages of various state approaches to minimum competency testing?
8:10	Priority Topic #2: What are the current legal issues surrounding minimum competency testing?
8:30	Priority Topic #3: What cost factors are involved in minimum competency testing?
8:50	Summary of Key Factors to Consider in Designing Minimum Competency Testing Requirements
9:05	Overview of the Truth in Testing Legislation Status
9:20	Priority Topic #4: What are the implications of truth in testing legislation for testing in general?

*This agenda and the presentation outlines might also work well for school board members and journalists.

**At the outset of the project workshop, legislators were given the Priority Checklist which follows the agenda and asked to put a check next to the five topics which would be of greatest interest. Results were tallied during the presentation of the Overview of minimum competency testing status. The five topics were then sequenced so they would flow logically for the audience and presenters could alternate on topics. See the "Workshop Presentation Guides" section of this manual and the booklets entitled, A Parent's Guide to Testing in the Schools and Educational Testing Facts and Issues: A Layperson's Guide to Testing in the Schools for content on each topic.

SAMPLE
AGENDA

9:35	Priority Topic #5:	What are the arguments advanced by advocates and opponents of truth in testing legislation?
9:50	Summary and Workshop Evaluation	
10:00	Adjourn	

SAMPLE
CHECKLIST

SEMINAR ON TESTING FOR LEGISLATORS:

PRIORITY TOPICS FOR DISCUSSION

Please check the five topics which are of most interest to you.

Minimum Competency Testing

_____ 1. What are the advantages and disadvantages of various state approaches to minimum competency testing?

_____ 2. What cost factors are involved in minimum competency testing?

_____ 3. How could responsibilities for conducting minimum competency testing be divided between the state and local districts?

_____ 4. How can minimum competency testing relate to other kinds of testing at the state or local levels?

_____ 5. What are the current legal issues surrounding minimum competency testing?

Truth in Testing

_____ 6. What are the origins of the interest in public disclosure of test information?

_____ 7. What are the arguments advanced by advocates and opponents of truth in testing legislation?

_____ 8. What are the implications of truth in testing legislation for testing in general?

AGENDA FOR A SCHOOL BOARD MEMBERS' WORKSHOP ON EDUCATIONAL TESTING FACTS AND ISSUES

Staff: Three presenters
Time: Full-day workshop

Beginning Time	Topic
9:00 a.m.	Introductions and Agenda Review
9:20	Test Purposes, Uses and Scores
10:15	Break
10:30	Major Legal Issues (approximately 30 minutes each, with two presenters alternating topics) - minimum competency testing - cultural bias - IQ testing
12:00	Lunch
1:15 p.m.	Analysis of a School District Testing Program (Simulation Activity: Divide participants into groups of about 20 in separate rooms)
2:30	Break
	Future Trends in Testing (approximately seven minutes per topic, with three presenters alternating topics and expressing their opinion on the future) - the expected growth of applied performance testing - future growth of testing in general - testing in special education - the use of tests in teacher licensing and certification - the future of college entrance exams - impact of electronic technology on testing
3:30	Summary and Workshop Evaluation
4:00 p.m.	Adjourn

AGENDA FOR JOURNALISTS' WORKSHOP ON EDUCATIONAL TESTING FACTS AND ISSUES

Staff: Three presenters
Time: Full-day workshop

Beginning Time	Topic
9:00 a.m.	Introductions and Agenda Review
9:20	Test Purposes, Uses and Scores
10:15	Break
10:30	Major Legal Issues (approximately 30 minutes each, with two presenters alternating topics) - minimum competency testing - cultural bias in testing - IQ testing
12:00	Lunch
1:15 p.m.	Current Issues Discussion (approximately 15 minutes for each topic) - test score decline - teacher competency testing - overtesting and proliferation of testing - other issues
2:30	Break
3:45	Future Trends in Testing (approximately 11 minutes per topic, with three presenters alternating topics) - expected growth of applied performance testing - future of college entrance exams - impact of electronic technology on testing
4:30	Summary and Workshop Evaluation
5:00	Adjourn

AGENDA FOR A LAWYERS' WORKSHOP ON EDUCATIONAL TESTING FACTS AND ISSUES

Staff: Three presenters
Time: Full-day workshop

Beginning Time	Topic
9:00 a.m.	Introductions and Agenda Review
9:20	Test Purposes, Uses and Scores
10:15	Break
10:30	Analysis of Test Manuals and Scores (Simulation Activity: Divide participants into groups of about 20 in separate rooms)
12:00	Lunch
1:15 p.m.	Concurrent Sessions (presentations and discussions in separate rooms) - Hints for Helping Parents and Students Cope with Testing - Cultural Bias and IQ Testing - Minimum Competency Testing
2:15	Break
2:30	Repeat Concurrent Sessions
3:30	Summary and Workshop Evaluation
3:45	Adjourn

Workshop Presentation Guides

This section contains outlines and support materials for workshop presentations and seminar agenda items. These outlines cover:

- General testing information (test purposes and uses, types of tests, test quality, test scores)
- Minimum competency testing
- Truth in testing
- Intelligence testing

Associated handouts and transparencies are presented immediately after each outline.

It is the responsibility of the trainer to adapt these materials to the specific audience and update the material as needed. At the very least, presenters are urged to study the material on each topic in the Layperson's Guide. References provided in the bibliography in the "Resources" section should also be consulted as needed.

PRESENTATION STYLES

There are at least four basic presentation styles that may prove useful in the workshop:

- Lecture with limited audience participation
- Presentation/discussion sessions
- Panel discussions of priority topics
- Simulation activities

The lecture approach with structured opportunities for audience participation can be used to introduce topics and present basic factual information. For example, in the project workshops, an opening presentatation on test purposes, uses and scores was often given using the lecture approach. This was presented early in the workshop and covered basic background information which was necessary for introducing later activities. This approach was used for both small and large groups and lasted no more than one hour.

A 30 minute presentatation/discussion format often was used for the topics of current and legal issues. This format worked best when the group was fairly small (about 10-20 people). If the group is large, sub-groups can be formed to promote greater discussion among participants.

However, when time is very limited and many topics are of potential interest, a panel discussion of the priority topics may be the most effective presentation method. In project workshops, participants were

given a checklist of about ten topics at the beginning of the session. They were asked to check the four to six topics that were of most interest. While one presenter began the session with an overview of testing on a particular topic, the other presenter(s) tallied the checklist results. The four to six topics, depending on the length of the session, which were of highest priority to the group were announced. A specific amount of time (usually 10-20 minutes) was allowed for each topic. Each presenter made brief opening comments about the topic and then asked for comments and questions. When the allocated time had elapsed, the presenter(s) moved on to the next topic. Generally two or three presenters participated and alternated topics when this format was used.

Simulation activities are used to provide participants with an opportunity to use information presented in the workshop. The two simulation exercises developed during the project (presented later in this section) were designed to provide participants with time to discuss the relationship between various kinds of tests and to better understand the type of information available on published tests.

Two to four trainers and a mix of formats are needed in most workshops, depending on the size of the group, the length of the sessions and the number of simultaneous sessions. In addition, having several presenters participate in a workshop adds flexibility and diversity.

OPENING ACTIVITIES

Generally a representative of the sponsoring organization(s) can open the workshops with welcoming remarks. Following introduction of the presenters and a description of the packets of materials, participants might be asked to introduce themselves and comment briefly on their particular interest in, or concern about, testing. This can be very useful if time permits and/or the group is smaller than 30 people. It can help the presenters know what issues to emphasize during the workshop. In addition, such introductions also can help participants become acquainted with one another and make the session more informal. During the opening remarks, the workshop purpose and context can be stressed, attention also can be called to the workshop evaluation form to be completed at the end of the session (included at the end of this section).

After these opening remarks and activities, trainers can move on to introduce the agenda topics structuring activities according to the following outlines.

General Testing Information: Presentation Outline

A workshop project on testing should begin with information sharing on test purposes and uses. This information is important to ensure that all participants are thinking about the same testing concepts that are being explored by the trainers. The presentation on test purposes and uses can be structured as follows:

I. Introduction

A. Ask audience: "Why is testing used in the schools?"

1. List responses on blackboard or transparency.

2. Keep encouraging responses until six to ten are listed. Make no judgments about those listed.

B. Ask audience: "Who uses test results?"

1. List responses on blackboard or transparency encouraging responses as before; don't erase reasons for testing. Expect responses such as:

a. legislators
b. lawyers
c. school boards (state, local)
d. administrators (state, local)
e. federal funding agencies
f. teachers
g. parents
h. students
i. guidance counselors
j. media
k. general public
l. employers

2. Distinguish between achievement and ability testing and any other type of measurement that participants may be thinking of. Indicate that the primary emphasis in the remainder of the discussion will be on achievement testing.

C. Use lists of tests as evidence of the extremely broad role of testing in the educational process.

II. Test Purposes and Users

A. Indicate that the task now is to try to organize these testing purposes and relate them to the various test users. The following framework, one of several that might be adopted, can be used to organize test purposes. It consists of these three categories:

1. Instructional

   a. diagnosis
   b. placement
   c. guidance

2. Entry-exit decisions

   a. selection
   b. certification

3. Programmatic decisions

   a. survey assessment
   b. formative evaluation
   c. summative evaluation

B. Summarize briefly the users for each test purpose (see Layperson's Guide and other resources) and relate them to the list of test users that the audience generated earlier.

III. Test Scores

A. Distinguish norm referenced tests (NRT) from criterion (CRT) or objective referenced tests (see Resources section for references).

B. Indicate which type of score (NRT or CRT) is likely to best serve each test purpose. The choice is not always clear cut; generally NRTs would be best for placement, guidance and selection, and CRTs best for diagnosis, formative evaluation and certification. Either type could be useful for the other purposes, depending on the situation. Transparency #1 may be useful during this discussion.

C. Distribute Handout #1. Use these score examples to discuss differences in test scores and how scores can serve multiple purposes. Allow participants time to ask questions and make comments.

D. Refer participants to Appendix B in the Layperson's Guide for a summary of test scores. Highlight scores which may be of interest to the group. Some of the interpretation problems with grade equivalent scores are particularly interesting. For example:

   1. Definition of a grade equivalent score and how it is commonly misunderstood.

   2. The grade equivalent score associated with the chance score on a test increases as grade level increases; thus, a student scoring at the chance level will appear to be growing from grade to grade when, in fact, this is just an artifact of the score conversion process.

E. The presenter may want to distribute the list of commonly used tests (included in the "Resources" section at the end of the manual) if the participants are likely to want to follow up and obtain additional information on tests (e.g., lawyers involved in litigation involving tests). If the list is distributed, the Test Analysis Checklist which follows (labeled Handout #2) should also be distributed. However, these materials are less likely to be of use to groups such as parents, who are not likely to need detailed test availability information.

MATCHING TEST TYPES WITH TEST PURPOSES

	COMPARISON ACHIEVEMENT TEST (NORM REFERENCED)	MASTERY ACHIEVEMENT TEST (OBJECTIVE/CRITERION REFERENCED)
INSTRUCTIONAL MANAGEMENT		
1. PLACEMENT	_____	_____
2. DIAGNOSIS	_____	_____
3. GUIDANCE	_____	_____
ENTRY-EXIT DECISIONS		
4. SELECTION	_____	_____
5. CERTIFICATION	_____	_____
PROGRAMMATIC DECISIONS		
6. SURVEY ASSESSMENT	_____	_____
7. FORMATIVE EVALUATION	_____	_____
8. SUMMATIVE EVALUATION	_____	_____

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

TEST PURPOSES, TYPES AND SCORES

The example below can help guide the discussion of two questions:

1. How can test results be used for purposes beyond those specified?
2. What particular test scores are most useful for various purposes?

Sample of Students in Cherry Valley School District*

	GRADE LEVEL		
	FOUR Iowa Test of Basic Skills Reading Subtest (percentile)	EIGHT Reading Mastery (# obj. mastered)	TWELVE Scholastic Aptitude Test (Std. score)
J. Alexson	18	6**	-
P. Bothwell	50	15	503
A. Cessna	96	20	610
C. Chen	40	13	480
P. Cooper	80	20	-
J. Henderson	63	18	490
H. Martinez	75	19	550
J. Polin	95	20	620
D. Sparks	68	16	400
B. Williams	22	10	-
Average Score	59	16	522

* Test Purposes: The fourth grade test was given to determine placement in courses at the beginning of the year. The eighth grade test was an exit or certification test. The twelfth grade test was a college selection test.

** Indicates number of objectives mastered. Number of objectives tested was 20. Students had to master 17 objectives to be promoted to grade nine without remediation. Those mastering between 11 and 16 could go on to grade nine, but had to participate in remedial programs. Those mastering ten or less were retained at grade eight.

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education

TEST INFORMATION CHECKLIST

Purpose: This checklist is designed to provide information on tests to those concerned with school district testing programs. It provides a list of items available from test developers on the characteristics of their tests which can help test users understand group or individual student test results. The checklist is not meant to be an all-inclusive listing of materials available related to testing; nor is it meant to be a listing of materials school districts must maintain with their tests. Rather, it is intended as a brief, common sense summary of the kinds of materials interested persons may wish to inquire about in becoming more familiar with various kinds of testing programs.

TYPE OF TEST	MATERIALS/INFORMATION THAT MAY BE AVAILABLE
1. Nationally Standardized, Norm Referenced Tests and Commercially Developed Criterion Referenced Competency Tests	• Test objectives and specifications--statements of what skills the test is intended to measure • Sample test questions • Test publishers' manuals--includes technical documentation for tests such as results of validity and reliability studies, reviews for cultural bias, etc. • Test administration manuals—directions for administering the test • Teacher score reports and interpretive information--materials given to teachers to help interprete student scores • Norm tables • District documentation on how test objectives and specifications are linked to the curriculum and instructional program • District historical data on student test performance--may be available broken down by racial, ethnic, language, gender groupings • District evaluation reports on special categorical programs which use test results

2. Locally-Developed Criterion Referenced Competency Tests	• Test content and item specifications--detailed statements of the skills the test is intended to measure • Sample test questions • Technical documentation for the test--district reports of validity, reliability, cultural bias studies, etc. • Teacher score reports and interpretive information--materials given to teachers to help in interpreting scores and remediating student skill weaknesses • District documentation on where and how competencies are taught in the instructional program • District historical data on student test performance--may be available broken down by racial, ethnic, language, sex groupings and before and after intervention with remedial programs
3. Intelligence and Physical Ability Tests	• Copies of test instruments • Publishers' interpretive manuals--includes statements of traits which tests are designed to assess, administration and scoring directions, directions for interpretation of results, etc. • Publishers' technical manuals--includes technical test documentation such as validity, reliability, cultural bias studies, etc. • District plan for test use in placement and instructional diagnosis--might include criteria for weighing test data in making special education referrals and placements, use of diagnostic testing in remedial programs, etc.

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

Minimum Competency Testing: Presentation Outline

The information presented in a workshop on this topic will vary greatly depending on the audience. The importance of and perspectives on minimum competency testing (MCT) are very different from one state to another and from one group to another (e.g., parents vs. legislators). A thorough examination of the needs of members of the potential audience is needed to know how to focus this presentation. The following outline, however, offers guidelines for structuring the workshop discussions. See the Resource Section of this manual for references useful in adding detail and perspective to the presentation (e.g., Gorth and Perkins, 1979).

I. General Overview of Minimum Competency Testing

A. Currently 32 to 38 states have some form of minimum competency testing. Most of these states will be phasing in their programs over the next three years.

B. Policy characteristics of state approaches to MCT--(See Transparency #1)

1. Presence/absence of diploma sanction

2. Centralized vs. decentralized approaches (see Transparencies #2 and #3)

II. Distinguish Statewide Assessment and MCT (see Transparency #4)

A. Statewide assessment characterized by:

1. A broad range of skill levels covered, not just those important in determining a minimum competency

2. No overall standards are set

3. Data has a broad range of uses--monitor general educational trends, identify areas in need of further research and program development

4. Individual students not necessarily affected

B. MCT characterized by:

1. Focusing on a narrow range of skills--those to show minimum proficiency

2. Having a definite, set standard of performance

3. Defining consequences that affect students as a result of meeting or not meeting standards--remediation, diploma

4. Involving individual student consequences

III. Important dimensions of MCT

A. Goals and purposes (see Transparency #5)

1. Ensure that students master certain basic and/or life skills prior to promotion or graduation

2. Clarify expectations regarding content of education; opportunity to solicit input from variety of groups and work towards concensus regarding basic elements of public school education

3. Introduce principle of accountability into management of public schools

4. Allow for earlier identification of students needing remediation

5. Certify competencies for receipt of diploma (about half of the states) or for planning remediation (most states)

B. Initial program mandates (see Transparency #6)

1. About half initiated by state boards of education, and half by state legislatures

2. States show varying degrees of specificity of requirements and allocation of responsibilities for implementation

3. Most states require all districts to participate; in only two states optional participation by district is allowed (Indiana and Illinois)

C. Content assessed in MCT

1. Areas (see Transparency #7)

   a. reading
   b. math
   c. language arts
   d. writing
   e. speaking
   f. listening
   g. other (democratic process, consumer education, science)

2. Grade levels

   a. about two thirds of the states test competencies at both elementary and high school levels
   b. six states test only at the secondary level

c. most programs require MCT for graduation, and test students in tenth or 11th grade, a few test as early as eighth or ninth grade
d. in five states (Illinois, Nebraska, Vermont, Arizona and Oregon) no test schedule is specified; local districts and schools decide

3. Competency development

a. in two-thirds of states, competencies are developed by states
b. in Massachusetts and Tennessee, state determines competencies for testing at secondary level, districts decide at elementary levels

D. Standards and standard setting

1. Generally set by state if state develops competencies, or by local district if district establishes competency guidelines.

2. Optional method of standard setting

a. administrative decision
b. based on field data
c. based on teacher and other review of items and judging what are reasonable expectations

E. Test instrument development

1. Responsibilities (see Transparency #8)

a. in seven states, responsibility delegated to local districts. In California, Oregon and Illinois, e.g., local districts may develop or select tests to suit their own population--the state provides technical assistance but no state approval required
b. fourteen states--local districts must use tests developed or selected by state--districts could develop additional tests if they so desire
c. eight states--districts and the state share responsibilities
    1. In Virginia, Tennessee, Connecticut, the state requires administration of its test at secondary level but permits district to choose own instrument at elementary level
    2. Nebraska and Massachusetts--state offers its test as one option for districts to choose

2. Options for test instrument development--cite advantages and drawbacks of each (see Transparency #9)

a. in-house development
b. use of consulting service or contracting agency

c. use of commercial tests and/or tests tailored by the publisher
d. combination of methods

F. Test administration

1. Handled at local district level in all programs

G. Scoring and analysis

1. About one half use hand or machine methods at the state or local level

2. Other use consulting agencies or test publishers

H. Reporting/Dissemination Options

1. Enter in students' permanent records

2. Inform parents, if competency not mastered; conference may be required

3. Teachers and administrators receive scores

I. Provisions for special populations

1. Groups recognized as special populations

a. special education students (deaf, blind, emotionally handicapped)
b. multi-lingual or non-native speakers of English
c. children of migrant workers
d. transfer students

2. Potential special accommodations

a. exempt
b. tests in different format or different administration procedure
c. different tests
d. score differently (different standard)
e. consider on a case by case basis

J. Program development funding

1. State provides bulk of funding for most states (20 to 30 states)
2. Others use local district funding (e.g., California mandates both testing and remedial programs)
3. A few states received Federal funds for program development funds under Titles I, III, IV, V or VI

IV. Legal issues (See Layperson's Guide for this information)

MAJOR ASPECTS OF MINIMUM COMPETENCY TESTING

TO COMPARE

A. GOALS AND PURPOSES

B. INITIAL MANDATES

C. CONTENT AREAS

D. PROCEDURES TO SET STANDARDS

E. TEST DEVELOPMENT PROCEDURES

F. TEST ADMINISTRATION

G. SCORING AND ANALYSIS

H. DISSEMINATION OF RESULTS

I. PROVISIONS FOR SPECIAL POPULATION

J. PROGRAM RESOURCES

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

CENTRALIZED vs. DECENTRALIZED APPROACHES TO MINIMUM COMPETENCY TESTING

CENTRALIZED

THE STATE'S RESPONSIBILITIES:

1. Enacts enabling legislation
2. Determines specific competencies with advice from local districts and the public
3. Develops test(s) and tries them out
4. Sets passing scores with advice from local districts and the public
5. Establishes testing schedule, provides tests to districts, provides for test scoring
6. Reports test results to legislature, districts, parents, students and other appropriate audiences
7. Provides regulations for addressing special populations(e.g., handicapped)
8. Provides regulations and/or funding for remedial programs
9. Evaluates impact of testing requirements

LOCAL SCHOOL DISTRICT'S RESPONSIBILITIES:

1. Modify curriculum and instruction to reflect test content
2. Provide basic and remedial instruction in skills to be tested
3. Administer tests
4. Use test results to make further curriculum/-instructional changes

DECENTRALIZED

THE STATE'S RESPONSIBILITIES:

1. Enacts enabling legislation or State Board policy specifying skill areas to be covered, grade levels to be tested, timelines and provisions for remedial instruction, treatment of special populations, etc.
2. Provides for regulations/-guidelines and/or technical assistance from state
3. May provide for selection and/or approval of test instruments
4. May provide for evaluation of impact of requirements

LOCAL SCHOOL DISTRICT'S RESPONSIBILITIES:

1. Determines specific competencies with advice from local districts and the public
2. Develops test(s) and tries them out
3. Sets passing scores with advice from local districts and the public
4. Establishes testing schedule, provides tests to districts, provides for test scoring
5. Modifies curriculum and instruction to reflect test content
6. Provides basic and remedial instruction in skills to be tested
7. Administers tests
8. Uses test results to make further curriculum/instructional changes
9. Reports test results to students, parents, local board and the public
10. Makes specific provision for addressing special populations

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

STATE APPROACHES TO MINIMUM COMPETENCY TESTING

APPROACH:	State Test/Mandated Diploma Sanction	Local Flexibility/Mandated Diploma Sanction	Local Flexibility/Diploma Sanction at Local Option	Local Flexibility/No Diploma Sanction
EXAMPLE:	Florida	California	Massachussetts	Kansas
ADVANTAGES:	• Uniform standard comparability of test results across districts • Transfer students within state face same test • Complete control over test quality • No costs for local district test development	• Local choice of test builds support and ownership among administrators and teachers • Test content & standards can better reflect local community preferences • Easier to link test content to curriculum/instruction	Same as California Same as California Same as California	• State "pilot test" of feasibility of MCT will provide information to decide whether or not to enact MCT • No threat of legal challenge
DISADVANTAGES:	• Difficult to achieve local consensus on test content and standards • Difficult to ensure match between test content and curriculum instruction • Diploma sanction heightens threat of statewide legal challenge	• No comparability of test results across districts • Transfer students face different tests • Minimum control over test quality • Significant local test development costs • Diploma sanction heightens threat of statewide legal challenge	Same as California Same as California • Some control over test quality; state offers state test, approved commercial tests, or will approve locally-developed test • Threat of legal challenge varies depending on district decisions	• No "leverage" on districts or schools to change/improve programs

Developed by the Northwest Regional Educational Laboratory Portland, Oregon, and the California Department of Education.

STATEWIDE ASSESSMENT	MINIMUM COMPETENCY TESTING
BROAD RANGE OF SKILL LEVELS	MINIMUM SKILL LEVELS
NO SET PERFORMANCE STANDARDS	SET PERFORMANCE STANDARDS
INSTITUTIONAL CONSEQUENCES	INDIVIDUAL STUDENT CONSEQUENCES
UNDEFINED CONSEQUENCES	DEFINED CONSEQUENCES

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education

GOALS AND PURPOSES

* CLARIFYING EDUCATIONAL EXPECTATIONS
* INTRODUCE ACCOUNTABILITY TO SCHOOL MANAGEMENT
* IDENTIFY STUDENTS NEEDING REMEDIATION
* INSURE BASIC AND/OR LIFE SKILL MASTERY PRIOR TO PROMOTION/GRADUATION

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

Responsibility for Initial Mandate Calling for State MCT Programs

State Board of Education	State Legislature
Alabama	Arizona[1]
Delaware	California
Georgia	Connecticut
Idaho	Florida
Maryland	Illinois
Massachusetts	Kansas
Missouri	Kentucky
Nebraska	Louisiana
New Hampshire	Maine
New Mexico	Michigan[2]
New York	New Jersey
Oregon	Nevada[3]
Rhode Island	North Carolina
Tennessee	South Carolina
Utah	Virginia
Vermont	(1979: Texas)

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[1] Arizona: competency-based program initiated by legislative mandate and directed by SBE mandate

[2] Michigan: legislative mandate for assessment in grades 4 and 7, SBE mandate for assessment in grade 10

[3] Nevada: legislative action superseded SBE action

From Gorth, W.P., and Perkins, M.R. A study of minimum competency testing programs: Final summary and analysis report. Amherst, MA: National Evaluation Systems, 1979.

CONTENT AREAS ASSESSED

CONTENT	NUMBER OF STATES*
READING	ALL
MATHEMATICS	ALL
LANGUAGE ARTS	17
WRITING	10
SPEAKING	4
LISTENING	3
OTHER	7

* THESE DATA ARE BASED ON A STUDY OF 30 STATES

From Gorth, W.P., and Perkins, M.R. A study of minimum competency testing programs: Final summary and analysis report. Amherst, MA: National Evaluation Systems, 1979.

Responsibility for Test Development

Complete Responsibility Assumed by SEA	Responsibility Shared by SEA & LEA	Complete Responsibility LEAs
Alabama	Connecticut	Arizona
Florida	Delaware	California
Georgia	Kentucky	Illinois
Idaho	Massachusetts	New Hampshire
Louisiana	Missouri	Oregon
Maryland	Nebraska	Utah
Michigan	Tennessee	Vermont
Nevada	Virginia	
New Jersey		
New Mexico		
New York		
North Carolina		
Rhode Island		
South Carolina		

From Gorth, W.P., and Perkins, M.R. A study of minimum competency testing programs: Final summary and analysis report. Amherst, MA: National Evaluation Systems, 1979.

TEST INSTRUMENT DEVELOPMENT METHODS

METHOD	NUMBER OF STATES*
A. IN-HOUSE DEVELOPMENT	3
B. USE OF CONSULTING SERVICES OR CONTRACTING AGENCY	4
C. USE OF COMMERCIAL TESTS AND/OR TESTS TAILORED BY THE PUBLISHER	3
D. METHODS A AND B	6
E. METHODS A AND C	2
F. METHODS B AND C	1
G. METHODS A, B AND C	3

* DATA BASED ON STUDY OF 22 STATES THAT DO NOT DELEGATE TEST DEVELOPMENT RESPONSIBILITY TO LOCAL DISTRICTS.

From Gorth, W.P., and Perkins, M.R. A study of minimum competency testing programs: Final summary and analysis report. Amherst, MA: National Evaluation Systems, 1979.

Truth in Testing: Presentation Outline*

The basic issues and dimensions of the truth in testing legislation are described in the Layperson's Guide (pp. 13-14). Those preparing to cover this topic in a workshop are urged to study that section of the guide. Included in the guide description are (1) background on the origins of the legislation and (2) statements of the positions of proponents and opponents of the legislation. The workshop presentation is likely to include specific information about the laws being considered, as well. The essence of that information is outlined below.

I. Basic Issues

A. Proponents of legislation - fair testing occurs when examinees whose lives are impacted by tests are able to review those tests and study their own performances

B. Opponents of legislation - fair testing occurs when secure tests are used to give every examinee an equal chance to perform to the best of their abilities

II. Origins of the Legislation

A. Consumer protection rather than regulatory groups

B. Supported by student public interest research groups

III. Status of Legislation (as of August 29, 1980)

A. Legislation proposed and passed

1. California
2. New York

B. Legislation proposed and pending

1. Connecticut
2. Louisiana
3. New Jersey
4. Ohio
5. Pennsylvania
6. Washington
7. Federal

*Primary Reference: Brown, R. and McClung, M.S. Searching for the Truth in "Truth in Testing" Legislation. Denver, CO: Education Commission of the States, January, 1980.

C. Legislation proposed and not passed

1. Florida
2. Illinois
3. Indiana
4. Maryland
5. Massachusetts
6. Minnesota
7. Mississippi
8. Missouri
9. Oklahoma
10. Rhode Island
11. South Carolina
12. Tennessee

IV. Provisions of the Legislation

A. Generally, the legislation would require that:

1. Tests be filed with chief state school officer for public view
2. Items, answer sheet and correct answers be provided to examinee upon request
3. Quality control and other scientific research studies be made public
4. All relevant descriptive information on test be made public

B. Provisions apply only to undergraduate and graduate admissions tests, with the exception of:

1. Washington and Federal bill--include occupational tests
2. New Jersey and Illinois--include standardized tests
3. Some states also require disclosure of financial aspects of testing program

V. Positions of Proponents and Opponents

A. See Layperson's Guide

VI. Potential Legal Challenges to Legislation

A. Tenth Amendment--education has traditionally been state responsibility

B. First Amendment--issue of college right to determine who is taught--issue of researcher's right to make research public

C. Due process clauses of Fifth and 14th Amendments--issue of publishers being deprived of private property without due process

D. Federal Copyright Act-- issue of protection of proprietary rights

E. Freedom of Information Act--tests have been exempted

VII. Impact

A. Initial effect

1. Legal challenges have been filed by:

a. Association of American Medical Colleges--violation of copyright law
b. College Board--extra-territoriality provision of New York bill (see Brown and McClung, 1980)

2. Withdrawal of service--19 tests withdrawn from New York by sponsors

3. Reduced test availability in some states

4. Increased test development costs

B. Long range impact

1. If legislation survives, there will be much more public scrutiny of tests and testing

2. Legislation can be expected on more than just college and graduate school admissions tests

3. There will be more litigation by test takers challenging the quality and appropriateness of tests

Legal Issues in IQ Testing: Presentation Outline

The basic issues and dimensions of the IQ testing arena are described in the Layperson's Guide (pp. 17-21) in some detail. Those preparing to cover this topic in a workshop are urged to study that section of the guide. Care should also be taken to determine the current status of new litigation on this topic, since this is such a rapidly evolving area. New decisions will tend to clarify appropriate procedures.

I. Background

A. Disagreements about nature and measurement of general intelligence

B. General nature and purposes of IQ tests and the kinds of traits these tests attempt to measure

C. Predictive purposes of IQ tests and distinctions between IQ, achievement and competency tests

II. Legal Issues

A. Basis for legal scrutiny centers on:

1. Consequences of uses of IQ test scores for placement, primarily in special education programs, and especially programs for educable and trainable mentally retarded pupils, and

2. Nature of the tests and what they measure (or purport to measure)

B. Current legal precedents

1. The Larry P. v. Riles case

a. Holding of the Court--California unlawfully discriminated against black children by using racially and culturally biased IQ tests to classify and place them in classes for the educable mentally retarded (EMR)

b. Reasons for the court's decision

(1) use of biased IQ tests and resultant discriminatory impact in violation of Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973 and the Education for All Handicapped Children Act of 1975

(2) unjustified toleration of disproportionate enrollment of black children in EMR classes, perpetuated by use of IQ tests, in violation of the equal protection clauses of the California and Federal constitutions

(3) state's segregative intent also violated Federal constitution

c. Court's Remedy

(1) state enjoined from using IQ tests for EMR identification or placement without court approval

(2) state must monitor and eliminate disproportionate EMR placement of black children

(3) state must reassess all black children currently in EMR classes without using IQ tests, and must provide special assistance for those found to have been misclassified

2. The Parents in Action for Special Education v. Hannon case

a. Judge conducted item by item analysis of test

b. Found insufficient evidence of bias

c. Ruled that IQ tests could be used in Chicago schools

d. Ruling opposite of Larry P.v. Riles

III. Potential Implications of Court Decisions

A. Will probably reduce the use of IQ tests nationwide

B. Will give new impetus to efforts to develop alternative or non-discriminatory assessment procedures (give examples)

C. Will give rise to further litigation to further clarify the law on this mode of testing

SIMULATION EXERCISES

Two simulation exercises are presented in this section, each providing participants with practical experience in dealing with test information. In the first simulation, participants are given experience in analyzing the characteristics of published tests, and in the second, participants are taken through an analysis of a school district testing program. Each simulation is presented here in three parts: (1) a guide for trainers using the simulation, (2) the actual problem or situation description given to participants that forms the basis of the simulation, and (3) support materials needed to conduct the simulation. The exercise description and support materials are provided in a reproducible form.

Simulation Exercise #1: An Analysis of Test Characteristics

Trainer's Guide

I. Purposes of the Simulation

A. Familiarize participants with norm referenced tests and test terminology

B. Familiarize participants with test manuals

II. Steps in Conducting Simulation*

A. Divide participants into groups of six around separate tables. (Activities A-D require about 8 minutes)

B. Explain purpose:

TO ACQUAINT PARTICIPANTS WITH PUBLISHED TEST NORMS TABLES. TERMINOLOGY FOUND IN TEST MANUALS AND KEY FACTORS EDUCATORS CONSIDER WHEN MAKING DECISIONS ABOUT TESTS TO USE IN PARTICULAR SITUATIONS.

C. Have participants read Problem Description - Part I

D. Trainer asks question of total group:

What information do you need to interpret these scores?

Expect answers such as:

a. relationship of test content to instruction
b. how close to chance score Wanda is performing
c. the reading difficulty level of the test
d. whether Wanda tends to block when taking tests or some external factors were influencing the test administration setting

E. Have participants perform Task 1. Before they begin, refresh their memory on how norms are established. Define raw score. (10 minutes)

F. Once participants seem to have completed the task, reconvene the total group. Ask one group to report their findings. Discuss questions group members have on how norm tables are displayed, prepared. (15 minutes)

*In conducting this session, it is important to allow time for questions group members have about tests, but try to keep fairly close to the allotted times.

Expected Results of Simulation Activities A-F:

Level	Wanda's Raw Score	Chance Raw Score
12	7	8
13	8	9
14	10	11
15	13	11
16	13	12

Wanda is staying right around chance score. This is hard to interpret. She may be just below the floor of the test and if only she had been given one test level lower she may have produced an interpretable score. On the other hand, she may be simply guessing. A lower level of the test would need to be given to get a quality measure. (See references on functional level testing.)

G. Have participants read the Problem Description - Part II. While they are reading, distribute one set of test descriptions to each group. Have each person take one. If there are less than seven people in the group, they can disregard the Auditory Discrimination Test, the Gray Oral Reading Test, or one person can look at two tests. (2 minutes)

H. Instruct participants to do Task 2. Before they begin, define validity and reliability. Then tell them to reference the glossary in the Layperson's Guide for more information. Circulate during the task to answer any questions. Give a time limit for completing Step 1. Then move them on to Steps 2 and 3. The total task will probably take about 20 minutes.

I. Reconvene the total group. Have each group report on the three tests they eliminated. (20 minutes)

Expected Outcomes of Task 2

The following points may be raised on those tests most likely to be eliminated:

Auditory Discrimination Test

1. This test is for a younger age child.

WRAT

1. Low reliability
2. Provides norm-referencee scores which are not what is needed
3. Norm group is questionable

Otis-Lennon

1. This is a group administered test using a paper and pencil mode.

2. It doesn't capture as many abilities as the WISC-R.

Woodcock Mastery Test

1. This test is not as comprehensive as the SDRT.

J. Use the remaining time to address questions on test selection, terminology, and information in test manuals. Make available test manuals from actual tests for group perusal.

SIMULATION
EXERCISE DESCRIPTION

An Analysis of Test Characteristics

This activity is divided into two parts. In Part I you will focus on a norm-referenced achievement test and the use of norms tables. In Part II you will review abstracts of several tests of ability and achievement. The purpose of the activity is to acquaint you with published test norm tables, terminology found in test manuals and key factors educators consider when making decisions about tests to use in particular situations. The activity will focus on one student but time will be allowed for you to ask questions about published tests in a more general sense.

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

Problem Description - Part I

Wanda is an 8th grade student at Youngs Junior High in Belaire School District. She moved to the district from another state. During the first week of school, her English teacher, Mrs. Smith, noticed that Wanda was struggling with her classwork and had not turned in any of the assignments. The teacher observed that Wanda seemed to spend a lot of time either day-dreaming or quietly asking the girl sitting next to her to pronounce words and repeat directions. At the end of the first week the teacher spoke with Wanda about the missing assignments and Wanda expressed frustration about not being able to read or understand all the material. She also said that she didn't always understand what she was required to do on each reading and writing assignment.

Mrs. Smith decided to talk with Wanda's science and social studies teachers to discuss her observations about Wanda's reading problems. These teachers also required reading and writing assignments and it was assumed that similar patterns of behavior would have been observed. Both teachers confirmed Mrs. Smith's observations and all three decided to talk with the principal, Ms. Baxter.

Ms. Baxter contacted the school psychologist, Mr. Lesley, and on October 1, the three teachers, principal and psychologist met to review their observations and discuss Wanda's reading problems. At that time, Mr. Lesley shared the information from Wanda's student file. The only information which had arrived from Wanda's former school was standardized achievement test results for the past five years. This test, the Brooks Achievement Test (BAT)*, had been administered districtwide to all students except those in special education classes.

*Although this is a hypothetical test, the information provided is similar to what would be available for standardized achievement tests produced by major test publishers.

The BAT is a norm-referenced group-administered achievement test appropriate for use with students in grades 2-8. There are six levels of the test. The following chart indicates the test level recommended for use at each grade and the reading subtests for which scores are provided.

		Subtests at Each Level*			
Test Level	Recommended Grades	Phonetic Analysis (PA)	Structural Analysis (SA)	Vocabulary Building (VB)	Reading Comp. (RC)
12	2-3	50	38	31	31
13	3-4	32	39	38	38
14	4-5	32	40	43	43
15	5-6	-	42	46	46
16	6-7	-	43	48	48
17	7-8	-	-	48	48

*These numbers indicate the total number of test items on the subtest.

Wanda's scores on Form A of the Brooks Achievement Test were as follows for each year:

Grade	Test Level Administered	Wanda's Grade Equivalent Score PA	SA	VB	RC	Average Grade Equivalent Score Nationally*
3	12	2.8	1.0	2.3	3.2	3.2
4	13	4.0	2.0	2.1	2.5	4.2
5	14	5.1	2.9	2.9	3.1	5.2
6	15	-	3.6	4.0	4.1	6.2
7	16	-	4.5	4.1	4.8	7.2

*The test was administered during the second month of the school year each year. Thus, the average grade equivalent score nationally would be 3.2, 4.2, 5.2, 6.2 and 7.2 respectively for grades 3-7.

TASK I

1. Each person in the group should take two or three of Wanda's five Reading Comprehension subtest scores and convert them to the comparable raw score using Tables 2a-2c in Attachment A. These norm tables allow conversion from the raw score to a grade equivalent score for each test level. There is a different table for each level and form of the test. Be sure to use the appropriate table and column for the scores you are converting. How close to the chance score* on the test are the scores?

2. In your group, compare your findings with one another. How do you interpret these scores?

*To determine the chance score, you need to know that each test item had four possible answers. You also need to know the total number of test items on the level of the Reading Comprehension subtest.

Problem Description - Part II

Following review of Wanda's achievement test scores and discussion of the problem with Wanda's parents, Mr. Lesley, the school psychologist, decided to conduct further testing to determine if Wanda may need to be placed in a special education class. He wanted measures of Wanda's IQ, specific reading skills, and auditory discrimination. An IQ test would give him a general indication of Wanda's ability for school learning. A test of reading skills would help the teacher plan the specific instructional program Wanda may need on a daily basis. The auditory discrimination test would help him determine if Wanda's reading problem may be due to a hearing problem.

Among the tests he considered were the Otis-Lennon Mental Ability Test, Stanford Diagnostic Reading Test, Auditory Discrimination Test, Woodcock Reading Mastery Tests, Wide Range Achievement Test, Gray Oral Reading Test and Wechsler Intelligence Scale for Children-Revised.

TASK 2

Each person will be given a description of one of several tests Mr. Lesley considered. These test descriptions have been abstracted from test publishers' manuals. Several terms may be familiar only to educators or testing specialists. Refer to the glossary of terms in Appendix A of the Booklet, Educational Testing Facts and Issues: A Layperson's Guide to Testing in the Schools, if necessary.

Step 1. Each person in the group should review one of the test descriptions and respond to the question:

GIVEN WHAT YOU KNOW ABOUT WANDA, DOES THIS APPEAR TO BE A TEST THE PSYCHOLOGIST IS LIKELY TO CONSIDER USING? WHY OR WHY NOT?

You may want to consider these questions when formulating your answer:

- Is the test valid? (Does it measure what it is intended to measure?)
- Is the test reliable? (Does it measure consistently?)
- Have norms been developed in a way which makes them representative of the population they claim to represent?
- Is the test free of compounding or irrelevant features, e.g., regional, cultural or sex bias, inappropriate reading level of directions or non-reading subtests?
- Are scores reported in the form(s) desired?
- Is the method of administration (group vs. individual) appropriate?

Step 2. As a group, discuss each person's response to the question in Step 1 for the tests.

Step 3. As a group, select the three tests which Mr. Lesley is least likely to use.

ATTACHMENT A

Table 2a

Grade Equivalent Conversion Tables
Brooks Achievement Test

Raw Score	Level 12 - Form A				Level 13 - Form A				Raw Score
	PA *	SA	VB	RC	PA	SA	VB	RC	
0	05 **	05	04	04	08	07	06	07	0
1	06	07	07	07	09	09	08	09	1
2	08	10	11	10	11	11	11	11	2
3	09	12	14	12	13	13	15	13	3
4	10	14	17	14	16	15	18	15	4
5	11	16	20	16	19	18	21	18	5
6	12	18	22	18	21	20	24	20	6
7	13	20	24	20	24	22	26	22	7
8	14	21	26	23	27	25	29	25	8
9	15	23	28	25	30	27	31	27	9
10	17	25	30	27	33	29	34	29	10
11	18	27	33	29	35	31	36	31	11
12	19	29	35	31	38	33	37	34	12
13	21	31	37	33	40	36	39	36	13
14	22	33	39	34	42	38	40	38	14
15	24	35	41	35	44	40	42	40	15
16	25	37	43	36	46	42	43	41	16
17	27	38	45	38	48	45	45	42	17
18	28	40	47	39	50	47	46	44	18
19	30	41	48	40	52	50	48	45	19
20	32	43	50	41	54	52	50	48	20
21	33	45	51	43	56	54	51	48	21
22	34	47	53	44	58	56	53	49	22
23	35	48	54	45	60	59	54	50	23
24	36	50	55	47	62	61	56	51	24
25	37	52	57	49	64	68	57	53	25
26	38	53	58	51	66	65	59	54	26
27	39	55	60	53	68	66	61	55	27
28	39	56	61	55	70	68	62	56	28
29	40	57	62	57	72	69	64	57	29
30	40	58	64	60	75	70	65	59	30
31	41	60	66	63	78	71	67	60	31
32	42	61			80	74	68	62	32
33	46	63				76	69	64	33
34	44	64				77	71	66	34
35	45	65				78	73	68	35
36	45	67				80	75	71	36
37	46	68				83	77	74	37
38	47	69				84	78	78	38
39	47					86			39
40	48								40
41	49								41
42	50								42
43	51								43
44	52								44
45	53								45
46	54								46
47	55								47
48	56								48
49	57								49
50	58								50

* PA = phonetic analysis
SA = structural analysis
VB = vocabulary building
RC = reading comprehension

A1

** The decimal point is not given in the table for the grade equivalent scores. For example 38 means a grade equivalent score of 3.8.

Table 2b

Grade Equivalent Conversion Tables
Brooks Achievement Test

Raw Score	Level 14 - Form A				Level 15 - Form A			Raw Score
	PA *	SA	VB	RC	SA	VB	RC	
0	12 **	09	08	10	12	12	13	0
1	14	10	10	11	13	14	14	1
2	16	12	13	13	16	16	16	2
3	18	14	16	15	19	19	17	3
4	21	17	19	17	23	22	19	4
5	24	20	22	19	27	25	21	5
6	27	23	25	21	30	29	23	6
7	30	25	29	23	34	33	26	7
8	33	28	32	26	37	36	28	8
9	37	31	34	28	40	40	30	9
10	40	34	37	31	43	43	33	10
11	43	36	39	33	45	45	35	11
12	46	39	41	36	48	48	38	12
13	49	42	43	38	50	50	41	13
14	51	44	45	40	52	53	43	14
15	53	47	46	42	55	55	46	15
16	55	50	48	44	57	57	49	16
17	57	53	50	46	60	60	51	17
18	59	55	51	58	62	62	53	18
19	61	58	53	49	64	64	55	19
20	63	60	54	50	66	66	57	20
21	66	63	56	52	68	68	59	21
22	68	65	57	53	70	70	60	22
23	70	68	59	54	73	71	62	23
24	72	70	61	55	75	73	63	24
25	75	72	63	56	77	75	65	25
26	78	74	65	57	80	76	66	26
27	80	75	66	58	82	78	68	27
28	82	76	68	60	84	80	70	28
29	85	78	70	61	86	81	71	29
30	88	80	71	62	88	82	73	30
31	91	81	73	63	90	84	74	31
32	94	82	75	65	91	86	76	32
33		84	76	66	93	87	78	33
34		85	78	68	95	89	80	34
35		87	79	70	96	90	82	35
36		88	81	72	98	92	84	36
37		90	82	74	100	93	86	37
38		92	83	76	101	94	88	38
39		94	85	79	103	96	90	39
40		96	86	82	105	97	92	40
41			88	85	107	99	94	41
42			90	89	109	100	96	42
43			92	92		102	99	43
44						103	101	44
45						105	104	45
46						106	106	46
47								47
48								48
49								49
50								50

* PA = phonetic analysis
SA = structural analysis
VB = vocabulary building
RC = reading comprehension

A2

** The decimal point is not given in the table for the grade equivalent scores. For example 38 means a grade equivalent score of 3.8.

Table 2c

Grade Equivalent Conversion Tables
Brooks Achievement Test

Raw Score	Level 16 - Form A			Level 17-Form A		Raw Score
	SA*	VB	RC	VB	RC	
0	15**	14	18	17	23	0
1	17	16	19	19	24	1
2	19	18	20	21	25	2
3	22	21	21	24	26	3
4	25	24	22	27	27	4
5	28	27	23	30	28	5
6	31	31	26	34	30	6
7	34	35	28	39	33	7
8	37	40	31	44	37	8
9	41	44	34	48	41	9
10	44	47	37	52	45	10
11	48	50	41	55	49	11
12	51	54	44	58	52	12
13	54	57	48	62	56	13
14	56	60	51	65	60	14
15	58	63	55	67	63	15
16	61	65	58	70	66	16
17	63	68	60	73	69	17
18	66	70	63	75	71	18
19	69	72	65	78	74	19
20	72	74	67	80	76	20
21	74	76	69	82	78	21
22	76	78	71	84	80	22
23	79	80	73	86	81	23
24	82	82	74	88	83	24
25	84	84	75	90	85	25
26	87	85	78	91	86	26
27	89	87	79	93	87	27
28	92	88	81	95	89	28
29	94	89	82	96	90	29
30	97	91	84	98	92	30
31	99	92	85	100	93	31
32	101	94	86	101	95	32
33	103	95	88	103	97	33
34	105	97	90	105	99	34
35	106	98	91	107	101	35
36	107	100	93	109	103	36
37	109	102	95	111	105	37
38	111	103	97	113	107	38
39	113	104	99	114	110	39
40	114	106	101	116	112	40
41	116	108	103	118	115	41
42	117	109	106	119	118	42
43	119	110	108	212	120	43
44		112	110	122	122	44
45		113	112	124	124	45
46		115	114	126	126	46
47		117	116	128	128	47
48		119	119	129	129	48
49						49
50						50

* PA = phonetic analysis
SA = structural analysis
VB = vocabulary building
RC = reading comprehension

A3

** The decimal point is not given in the table for the grade equivalent scores. For example 38 means a grade equivalent score of 3.8.

SUPPORT MATERIALS

One set of the test description on the following pages should be presented to each group of 5-7 people as directed in the trainer's guide under step G. Each test description should be stapled separately.

WECSHLER INTELLIGENCE SCALE FOR CHILDREN-REVISED (WISC-R)*

In 1949 Wechsler developed the Wechsler Intelligence Scale for Children. This scale was revised and restandardized in 1974; its present form is called the Wechsler Intelligence Scale for Children-Revised (WISC-R). It is designed to assess the intelligence of persons six through 16 years of age and must be individually administered by a trained person. The WISC-R includes both verbal and performance subtests.

Verbal Subtests

1. Information: Assesses ability to answer specific factual questions consisting of information that a person is expected to have acquired in both formal and informal educational settings.

2. Comprehension: Assesses ability to make practical judgments and common sense responses.

3. Similarities: Requires identification of similarities or commonalities in unrelated verbal stimuli.

4. Arithmetic: Assesses ability to solve problems requiring application of arithmetic operations.

5. Vocabulary: Items assess ability to define words.

6. Digit Span: Assesses immediate recall of orally presented digits. (supplementary subtest)

Performance Subtests

1. Picture Completion: Assesses ability to identify missing parts in pictures.

2. Picture Arrangements: Assesses comprehension, sequencing, and identification of relationships by requiring a person to place pictures in sequence to produce a logically correct story.

3. Block Design: Assesses ability to manipulate blocks in order to reproduce a visually presented stimulus design.

4. Object Assembly: Assesses ability to place disjointed puzzle pieces together to form complete objects.

5. Coding: Assesses the ability to associate certain symbols with others and to copy them on paper.

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6. Mazes: Assesses ability to trace a path through progressively more difficult mazes. (supplementary subtest)

Scores. Raw scores obtained on the WISC-R are transformed to scaled scores with a mean of ten and a standard deviation of three. The scaled scores for verbal subtests, performance subtests, and all subtests combined are added and then transformed to obtain verbal, performance, and full-scale IQs. IQs for the Wechsler scales are deviation IQs with a mean of 100 and a standard deviation of 15.

The WISC-R employs a multi-point scoring system for some of the subtests. Responses for the Information, Digit Span, and Picture Completion subtests are scored pass-fail. A weighted scoring system is used for the Comprehension, Similarities, and Vocabulary subtests. Incorrect responses receive a score of zero, lower-level or lower-quality responses a score of one, while more abstract responses are assigned a score of two. The remainder of the subtests are timed. Individuals who complete the tasks in relatively short periods of time receive more credit.

Norms. The WISC-R was standardized by selecting stratified work and having individual examiners around the country administer the test to specified kinds of individuals. It was standardized on 2,200 children aged 6 1/2 to 16 1/2. The standardization group was stratified on the basis of age, sex, race, geographic region, occupation of head of household, and urban-rural residence according to 1970 U.S. census information.

Reliability. Internal-consistency reliability of the subtests is reported for the WISC-R in the form of split-half reliability coefficients, separately at each of 11 age groups. The reliabilities differ for the specific subtests and the age levels on which the coefficients are based. Reliabilities for the separate subtests are reliabilities of scaled scores while reliabilities for verbal, performance, and full-scale IQs are reliabilities for the IQs. Reliabilities for the Digit Span and Coding subtests are test-retest reliabilities. Reliabilities for all subtests and all ages range from .57 to .92. Reliabilities for the three IQs range from .89 to .96.

Validity. Three concurrent validity studies were used to ascertain the relationship between performance on the WISC-R and on other measures of intelligence. In the first study, fifty 6-year-old children were administered both the WISC-R and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI). The WISC-R full-scale IQ and the WPPSI full-scale IQ had a .82 correlation. In the second study, forty children aged 16 years, 11 months, were given the WISC-R and the Wechsler Adult Intelligence Scale (WAIS); the full-scale IQs on the two scales had a .95 correlation. Verbal IQs on the two scales were intercorrelated .96; performance IQs, .83. A third study was conducted to compare performance on the WISC-R with performance on the Stanford-Binet Intelligence Scale. Small samples of children (27-33) at four ages were given both scales. Average correlations between Stanford-Binet IQs and WISC-R verbal, performance, and full-scale IQs were .71, .60 and .73 respectively.

OTIS-LENNON MENTAL ABILITY TEST*

The Otis-Lennon Mental Ability Test is the fourth edition of the Otis series. The original Otis test, the Otis Group Intelligence Scale, was the first group intelligence test designed for use in American schools. The test represented an effort to develop a paper-and-pencil test that would be similar in format to the individually administered Stanford-Binet Intelligence Scale.

The Otis-Lennon is designed to measure general mental ability in the form of "verbal educational" intelligence in kindergarten through grade 12. According to the authors, "The various items comprising the tests measure broad reasoning abilities involving the abstract manipulation of ideas expressed in verbal, figural or symbolic form" (p. 8). The authors indicate that performance on the tests reflects a complex "learned or developed abilities in the broadest sense."

There are six levels of the Otis-Lennon and two forms of the test at each level. The test contains no subtests but a variety of behaviors are sampled at each level. The test was designed to assess verbal-educational intelligence by measuring the extent to which students can solve abstract reasoning problems in verbal, figural, and symbolic format. The Primary I, Primary II, and Elementary I (grades K.5-3.9) levels contain only pictorial and geometric content; they require no reading. The upper levels of the test sample fourteen different kinds of behavior by means of verbal, figural, and numerical stimuli. This information and grades at which the levels are appropriate are illustrated in the following table:

Level	Grades	Behaviors Sampled
Primary I	K.5-K.9	Classification
Primary II	1.0-1.5	Following directions Quantitative reasoning Comprehension of verbal concepts
Elementary I	1.5-3.9	Classification Following directions Quantitative reasoning Comprehension of verbal concepts Reasoning by analogy
Elementary II Intermediate Advanced	4.0-6.9 7.0-9.9 10.0-12.9	Verbal comprehension - synonyms, opposites, sentence completion, scrambled sentences

Level	Grades	Behaviors Sampled
		Verbal reasoning-word-letter matrix, verbal analogies, verbal classification, inference, logical selection
		Figural reasoning - figure analogies series completion, pattern matrix
		Quantitative reasoning - number series, arithmetic reasoning

The Primary I, Primary II, and Elementary levels are untimed. However, the following approximate times should be allowed in planning for administration: the Primary forms require about 30 minutes; Elementary I, 50 to 55 minutes; the other levels require 40 to 50 minutes.

Scores. Three kinds of transformed scores may be obtained on the Otis-Lennon. Raw scores may be transformed to deviation IQs with a mean of 100 and a standard deviation of 16. They may also be transformed to percentile ranks of stanines for either age level or grade level comparisons.

Norms. The Otis-Lennon was standardized on approximately 12,000 students per grade in kindergarten through grade 12 (approximately 156,000 students). The standardized program was carried out in 103 public and parochial school systems, and the sample was chosen on the basis of system size, socio-economic status, and geographic region. Within each school system, school personnel selected schools that demonstrated high, average, or low achievement; these data were used to select the sample in such a way that it would represent the achievement level of the entire system.

Reliability. Alternate-form reliabilities are reported in the technical handbook. They were computed by testing 1,000 children at each grade level on both forms of the test. The tests were administered within a two-week interval. Thus, reliability estimates include both error of measurement associated with differences in item content and differences in test occasion. Alternate-form reliability coefficients ranged from .83 to .94.

Internal consistencies were computed using both split-half and Kuder-Richardson techniques. Reliability coefficients ranged from .88 to .96. Test-retest reliability over a one year time interval ranged from .80 to .94.

Validity. Evidence about the content validity, criterion-related validity, and construct validity is reported in the technical handbook. Numerous tables are used to summarize the relationship between performance on the Otis-Lennon and performance on subtests of the California Achievement Test, the Ohio Survey Test, the Metropolitan Achievement Test, the Stanford Achievement Test, the Sequential Tests of Educational Progress, and the Iowa Tests of Educational Development. In general, the correlations are in the range from .50 to .80. Correlations

between scores earned on the Otis-Lennon and end-of year course grades generally range from .45 to .70.

Construct validity for the Otis-Lennon was established by correlating performance on the test with performance on a number of readiness, intelligence, and aptitude measures. Most of the studies indicate that the Otis-Lennon correlates in a range from about .70 to .85 with other measures of mental ability.

Simulation Handout - Task 2
Test Description

STANFORD DIAGNOSTIC READING TEST*

The Stanford Diagnostic Reading Test (SDRT) consists of a series of measures of specific reading skills. There are four overlapping levels of the test, with two parallel forms (A and B) at each level. Levels of the test are identified by color. The Red level is designed to be used at the end of grade 1, in grade 2, and with low achieving students in grade 3 and succeeding grades while the Green level is intended for use in grades 3 and 4 and with low-achieving students in grade 5 and succeeding grades. Children in grades 5 through 8 and low achievers in higher grades are assessed using the Brown level. The Blue level, also known as SDRT III, was published before the other three and is intended for use in grades 9 through 12. The SDRT may be either individually or group administered by classroom teachers.

Four skill domains are sampled by the SDRT, though not all domains are sampled at all levels. Subtests and skill domains sampled are as shown in Table I.

Behaviors sampled by the subtests of the SDRT are as follows:

Auditory Vocabulary. This subtest assesses skill in identifying the word or words that best fit the meaning of a dictated sentence. Initial items in the Red Level require the child to associate words with pictures. The subtest is included at the Red, Green and Brown levels of the SDRT.

Auditory Discrimination. This subtest assesses skill in hearing similar and different sounds in words. At the Red Level, the student must identify whether two words begin or end with the same sound. The Green Level assesses identification of similar and different beginning, middle, and ending sounds. The subtest is not included at the Brown and Blue levels.

Phonetic Analysis. The Phonetic Analysis subtest assesses skill in identifying letter-sound relationships. Easier items assess skill in identifying letters that represent the beginning or ending sounds in words. More difficult items assess similar behaviors using both common and variant spellings of sounds. The subtest is included at all four levels.

Structural Analysis. This subtest is included only in the Green, Brown and Blue levels. Behaviors sampled include the use of syllables, prefixes, root words and blends.

Word Reading. The Red Level of the SDRT includes a Word Reading subtest, which measures skill in word recognition. The child must identify which of several response words most closely represents a picture.

Reading Comprehension. Behaviors sampled by this subtest vary at the different levels. At the Red Level, the children must read sentences and identify the pictures that best represent what they have read; they must also complete sentences and paragraphs that use a modified cloze format.* At the Green Level, two formats are used to assess comprehension: the modified cloze format and a paragraph-comprehension format requiring literal comprehension of what has been read. The Brown and Blue levels assess both literal and inferential comprehension using a paragraph-reading format.

Rate. The subtest on rate of reading is included only at the Brown and Blue levels. It assesses skill in reading materials quickly.

Scores. The SDRT is both norm-referenced and criterion-referenced. It can be used to assess a student's performance relative to the performance of others, and it can be used to pinpoint individual student's strengths and weaknesses in specific reading skills.

At the Red and Green levels, students respond directly in the test booklets; at the Brown and Blue levels, students must mark their answers on separate answer sheets. The test can be either hand-scored or machine-scored. Six kinds of scores can be obtained; which scores are useful depends on the purpose for which the test has been administered.

Raw scores are obtained for each subtest and can be transformed to percentile ranks, stanines, grade equivalents, and scaled scores. Progress Indicators are criterion-referenced scores, which are "+" or "-" indications as to whether a student achieved a predetermined cutoff score in a specific skill domain; they show whether a student demonstrates competence in specific skills important to the various stages in the process of learning to read effectively. The manual for each level of the SDRT includes an appendix that lists specific instructional objectives assessed by each level of the test.

The norm-referenced scores obtained by administering the SDRT can be used for a variety of purposes. The authors suggest that comparisons to national norms be made using percentile ranks, stanines, or grade equivalents. Detailed procedures for the use of stanines to group students for instructional purposes are included in the manuals. Scaled scores, because they are comparable across both grades and levels, may be used in evaluating student growth and in interpreting the performance of students who are tested out of level (e.g., the scores of a fifth grader who has taken the Red Level).

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*The "cloze" procedure is a technique in which words are omitted from a sentence. To close the sentence correctly, the student must comprehend the story. Many programmed tests for example, use a cloze format. The modified cloze format used in the SDRT gives the student a choice of several words. The following is an illustration: Elephants are well known as animals that never forget. But Henry was a strange elephant who, unlike other elephants, always _____ things.

(a) wanted (b) forgot (c) remembered (d) liked

Norms. In selecting the standardization sample for the SDRT, the authors used a stratified random-sampling technique. Socio-economic status, school-system enrollment, and geographic region were the stratification variables. School-system data were obtained from the United States Office of Education's 1970 census tapes. The tapes were used to generate a random sample of 3,000 school districts. A composite socio-economic-status index for each system was determined by weighing family income twice and averaging it with the median years of parental schooling. Age and sex were not controlled in standardizing the SDRT.

Within each of the stratified cells, school districts were invited to participate in standardization of the test. A random sample of consenting districts within each cell was selected. The test was standardized in 55 school districts; approximately 31,000 students participated in the standardization.

Reliability. Two types of reliability information are available for the SDRT: reliability of raw scores and reliability of Progress Indicators. Reliability of raw scores earned on the test was ascertained by assessing both internal-consistency and alternate-form reliability. Internal-consistency coefficients for all subtests at all levels exceed .90 with the exception of coefficients for Auditory Vocabulary. These consistently range from .84 to .92. Alternate-form reliability coefficients range from .63 to .95. Standard errors of measurement in both raw-score and scaled-score units are tabled in the manuals.

The reliability of the Progress Indicators was determined by administering both forms to the same students and establishing each student's Progress Indicator on each form. Contingency tables provided in the manual enable the user to estimate the probability that students would obtain different Progress Indicators if they took the alternate forms of the test.

Validity. The authors state that a test's content validity must be based on an evaluation of the extent to which test content reflects local curricular content. Criterion-related validity was established by correlating performance on each of the SDRT subtests with performance on the reading subtests of the Stanford Achievement Test. These correlations range from .61 to .95 for the Red and Green levels, and from .44 to .87 for the Brown level.

Table I

Red Level	Green Level	Brown Level	(SDRT III) Blue Level
	Vocabulary		
Test 1: Auditory Vocabulary (36)	Test 1: Auditory Vocabulary (40)	Test 1: Auditory Vocabulary (40)	Test 2: Word Meaning (30) Test 3: Word Parts (30)
	Decoding		
Test 2: Auditory Discrimination Consonant sounds (24) Vowel sounds (16) (15)	Test 2: Auditory Discrimination Consonant sounds (18) Vowel sounds (18)	Test 3: Phonetic Analysis Consonant sounds (18) Vowel sounds (18)	Test 4: Phonetic Analysis Consonant sounds (15) Vowel sounds
Test 3: Phonetic Analysis Consonant sounds (24) Vowel sounds (16)	Test 3: Phonetic Analysis Consonant sounds (18) Vowel sounds (18)	Test 4: Structural Analysis; Word Division (48) Blending (30)	Test 5: Structural Analysis Blending (24)
	Test 4: Structural Analysis; Word Division (30) Blending (30)		
	Comprehension		
Test 4: Word Reading (42)	Test 5: Reading Comprehension	Test 2: Reading Comprehension	Test 1: Reading Comprehension
Test 5: Reading Sentence Reading (32) Paragraph Comprehension (16)	Literal comprehension (30) Interential Comprehension (30)	Literal comprehension (30) Inferential Comprehension (30)	Literal comprehension (30) Inferential Comprehension (30)
	Rate		
		Test 5: Reading Rate (34)	Test 7: Fast Reading (30) Test 6: Scanning & Skimming (32)

Simulation Handout - Task 2
Test Description

GRAY ORAL READING TEST*

The gray Oral Reading Test is an individually administered diagnostic reading test designed to provide an objective measure of skill development in oral reading from early first grade through college. The test was specifically designed to facilitate the diagnosis of oral reading difficulties. The Gray is available in forms A, B, C and D. All forms are similar in organization, length, and difficulty level; this enables periodic retesting with comparable but nonidentical forms of the test.

The Gray consists of a series of graded reading passages in a spiral bound booklet. The student reads the passages aloud while the examiner records errors and notes reading characteristics on a separate student record booklet. Following the reading of each passage, the materials are removed and the examiner asks a series of questions designed to assess the student's literal comprehension of material covered in the passage.

The Gray provides the teacher, reading specialist, or psychologist with an assessment of both the speed and accuracy of oral reading. The examiner records the length of time it takes a student to read each individual passage. Starting points differ for individual students. The test manual provides general guidelines, based on a student's grade level, about the point where the test should be started. Each form contains 13 reading passages of increasing difficulty. Students begin with an easy passage that they can read without error and read to the point where they can make seven or more errors in two consecutive passages. For each reading passage the examiner records the number and kinds of errors in oral reading, along with the time it took a student to read the passage.

Actual administration of the test should be conducted by a trained individual. Errors recorded for the Gray include aids (e.g., support from examiner), partial mispronounciations, gross mispronounciations, omissions, insertions, inversions, substitutions, and repetitions. The test has a convenient list of reading characteristics enabling examiners to check those they observe.

Scores. Two kinds of information are obtained from the Gray. The student earns a grade score that reflects in a global sense the speed and accuracy of oral reading. Additional information includes the systematic error analysis resulting from the administratin of the test.

Norms. Norms for the Gray are both "tentative" and limited. They are based on testing only 502 children (256 boys and 246 girls), 40 at each grade level, from schools in Florida and Chicago. The only information provided about the nature of the standardization population is

*Gray, W.S. and Robinson, H.M. Gray Oral Reading Test, Indianapolis, IN: Bobbs-Merrill, 1967.

information on sex, geography, location and types of students excluded from sample--students with speech problems, serious health problems, emotional problems or students who had been held back or double promoted.

Reliability. Reliability data of intercorrelations among grade scores on each of the four forms are reported in the manual. Alternative-form reliability coefficients range from .97 to .98 for girls, and from .96 to .98 for boys. The standard error of measurement for the test is four raw-score points for the total score. No test-retest reliability data are reported.

Validity. Validity is based on expert opinion. The authors state that the tests are valid primarily because of procedures used in constructing them and because of the test's discrimination between students at different grade levels. Test construction is based on data from a 1915 version of the test and a search of contemporary basal readers.

WOODCOCK READING MASTERY TEST*

The Woodcock Reading Mastery Tests are a battery of five individually administered tests used to assess skill development in reading with students in kindergarten through grade 12. The complete materials for the test are contained in an easel kit. There are two alternate forms of the battery, each of which can be administered in 30 to 40 minutes. The five subtests and the behaviors they sample follow.

Letter Identification. This subtest assesses skill in naming letters of the alphabet. Identification of lower and upper case manuscript, roman, sans serif and speciality type face letters are assessed.

Word Identification. This subtest assesses ability to pronounce words in isolation.

Word Attack. This subtest assesses ability to use phonic and structural analysis skills in the identification of nonsense words.

Word Comprehension. This subtest assesses knowledge of word meaning. An analogy format is used.

Passage Comprehension. This subtest uses a modified cloze procedure in which the student's task is to read silently a passage that has a word missing and then tell the examiner an appropriate word to fill the blank space.

Scores. Raw scores for subtests of the Woodcock Reading Mastery Tests can be converted to grade scores, age scores, percentile ranks, and standard scores. Separate scores are earned in each of the subtests and the test also provides a total score for reading based on a combination of the performances on the five subtests. The total score is a global, undifferentiated score based on an average of several different kinds of behavior samplings.

In addition to the more traditional scores, the Woodcock provides "Mastery Scores." The author states that:

> The Master Scale is an equal interval scale that directly reflects changes in an individual's proficiency with a task. Any given difference between two points on the Mastery Scale has the same meaning at any level and in any of the five skill areas measured by the test. (p. 28)

Tables in the test manual facilitate conversion of raw scores to mastery scores. The purpose of the mastery score is to provide an index of a student's reading proficiency at different levels of difficulty. A

*Woodcock, R.W. Woodcock Reading Mastery Tests, Circle Pines, MN: American Guidance Service, 1973.

student may be reading at a fourth-grade level with 75 percent mastery while reading third-grade material with 96 percent mastery.

By using a Mastery Profile, the examiner can chart an individual's range of reading behaviors, would suggest instructional ranges for the subject, and indicate the quality of performance to be expected if the subject is given reading material either inside or outside this range.

Norms. The standardization of the Woodcock took place over a two year period in fifty school districts throughout the United States. A total of 5,252 subjects in kindergarten through grade 12 were tested. The manual includes a detailed description of the normative sample in terms of community size, race, persons per household, years of schooling, occupation, and income.

Reliability. Three kinds of reliability data are included in the Woodcock manual. The author reports split-half reliabilities for a pre-A form for grades 1, 4 and 10 and for grades 2 and 7 forms A and B. Test retest alternate-form reliability is also reported for grades 2 and 7. Standard errors of measurement are reported and are based on both split-half reliabilities for test scores as well as mastery scale units. Split-half reliabilities range from .79 to .99 at the end of grade 2 and from .02 to .98 at the end of grade 7.

Validity. Evidence related to validity was drawn from four sources: content validity, multitrait-multimethod matrix analysis, further intercorrelation data, and a predictive study using the mastery scale. Evidence for content validity, as in most diagnostic tests, is based on the procedures used to select test items. The author states that items were selected to assess identification, word attack, and comprehension.

Intercorrelations between subtests of the Woodcock range from .04 to .92 depending on both the subtests considered and the grade level of the sample of concern. Subtest intercorrelations, in general, range from .35 to .92.

Predictive validity for the Woodcock was established by predicting performance on an alternate form of the test from scores on the first form. Using test-retest data on 205 subjects, the author was able to show that there was no statistically significant difference between predicted and observed levels of performance for each of the five subtests as well as the total reading.

Simulation Handout - Task 2
Test Description

AUDITORY DISCRIMINATION TEST*

The Auditory Discrimination Test (ADT) developed by Wepman is an individually administered, norm-referenced device intended to assess the auditory discrimination skills of children between ages 5 and 8. The ADT is available in two forms, which were equated through an unspecified procedure. Each form contains forty pairs of words. Thirty of these word pairs consist of words that differ from each other in only one phoneme; ten consist of identical words. In the different-word pairs, the location of the differing phonemes varies among initial, medial, and final positions. The administration of the device requires the examiner to read each word pair; the child indicates if the two words are the same or different. Estimated testing time is 5-10 minutes.

Scores. Scores are based on the child's performance on the different word pairs. The Manual of Administration, Scoring, and Interpretation of the Auditory Discrimination Test contains tables with which raw scores can be converted to a five-point rating scale. The scale is based on percentile ranks.

Norms. Neither the number of children in the norm group nor their characteristics are mentioned.

Reliability. Wepman reports two test-retest stability coefficients greater than .90 and an alternate-form reliability estimate of .92. The sample used to estimate reliabilities is not described.

Validity. Eight studies are reported to establish the validity of the ADT. The data presented do not establish the validity of the rating scores.

*Wepman, J.M. Auditory Discrimination Test. Chicago, IL: Language Research Associates, 1958.

Simulation Handout - Task 2
Test Description

WIDE RANGE ACHIEVEMENT TESTS*

The Wide Range Achievement Test (WRAT) is an individually administered, norm-referenced (by age), paper-and-pencil test that assesses performance in reading, spelling, and arithmetic. Estimated testing time is 20-30 minutes. There are two levels of the test: Level I for students younger than 12, and Level II for those over 12. Three subtests at each level assess reading, spelling and arithmetic.

a. Reading: This subtest assesses skills in recognizing capital letters, naming capital letters, and recognizing words in isolation.

b. Spelling: This subtest assesses skills in copying marks on paper, writing one's name, and writing single words from dictation.

c. Arithmetic: This subtest assesses skills in counting, reading numerals, solving orally presented problems, and performing written computation of arithmetic problems.

Scores. Three types of scores are obtained for each of the subtests of the WRAT: grade equivalents, percentile ranks based on age, and standard scores with a mean of 100 and a standard deviation of 15.

Norms. The authors of the WRAT state that no attempt was made to obtain a representative national sample of students for the standardization of the test. Each level of the test was standardized on at least 150 males and 150 females at each of nineteen age levels, producing a total standardization population of 5,868 persons for Level I and 5,933 persons for Level II. Schools in seven states were included in the standardization sample. Norms were not stratified on the basis of race, ethnic-group membership, SES level, or geographic region. However, the selected groups were in no way restricted to any economic, intellectual, or racial population. The inclusion of handicapped children would approximate their normal incidence in the general population since there was no attempt to exclude them from norming procedures.

in writing dictated words, while the Arithmetic subtest is a measure of the student's computational skills.

Several methods of validating the WRAT are discussed, along with examples of each. Among them are: (1) the correlation of test results with teacher ratings, (2) the correlation of WRAT scores with the Stanford Achievement Test Scores and Metropolitan Achievement Test Scores, (3) correlation of WRAT scores with IQ test scores, and (4) a factor analysis of the abilities being tested.

Simulation Exercise #2: Analysis of a School District Testing Program

Trainer's Guide

I. Purposes of the Simulation

A. Apply knowledge acquired in the testing workshop in defining problems and recommending solutions

B. Provide practice in analyzing testing issues in a simulated school board meeting setting

II. Steps in Conducting the Simulation

A. Participants should work in groups of 5 to 8

B. Trainer(s) should carefully review the task, directions, and the time schedule before group work begins

C. Each group should designate a discussion leader and a recorder

D. Approximately 10 to 15 minutes into the exercise, trainer(s) should begin circulating to each of the groups to play the consultant role and clarify any questions

E. After each group has identified problems and formulated recommendations, trainer(s) should have each recorder summarize group's position. The overall summary can be recorded on chart paper, so participants can see the full array of problems and recommendations identified by all groups

III. Expected Outcomes of Simulation

Problems that may be identified:	Recommendations that may be made:
1. Too much testing time	Consider test consolidation; (e.g., use Stanford or CAT--not both) annual rather than pre-post, testing, etc.
2. Inadequate, untimely	Consult with teachers to modify

Problems that may be identified	Recommendations that may be made:
4. Competency Tests - • Administered only in grade 12--no provision for early identification of student weaknesses • Developed without any expertise in test development--there are likely deficiencies in validity and reliability • Tests have far too many items • Results reported to parents and teachers are inadequate	Competency testing program is so deficient it should be thoroughly reviewed by Board and administration and modified to correct the problems cited
5. Categorical Program Testing • Compensatory Education: No need for pre-post testing; no need to use CAT and Stanford tests; reporting of scores only to state and Federal offices gives teachers no information • Bilingual Education: It is of little use to use only an English language achievement test for most limited and non-English speaking students; reporting of scores only to state and federal offices gives teachers no information • Language Proficiency Testing: Program place-	Board work with administration to revamp compensatory testing to address problems noted

Problems that may be identified	Recommendations that may be made
• Special Education Performance Testing: Policy exempting all special education pupils from district testing is not sensible	
6. Other General Problems--	
• No evidence of any diagnostic testing	Board review current diagnostic testing procedures, if any, and request presentation of options for incorporating this type of test
• No inservice training for teachers in use of test results	Board request plan for teacher inservice in use of test results

SIMULATION
EXERCISE DESCRIPTION

An Analysis of a School District Testing Program

Your task is to review the testing program of the Brookfield School District, raise questions about its nature and purposes and recommend any changes you feel are warranted.

DIRECTIONS TO PARTICIPANTS:

This exercise has 3 parts. First, you will work in a small group as a School Board to review the attached background material which describes the Brookfield School District's testing program. A member of the training team will serve as a consultant to your Board to clarify any questions you might have about the current status of the testing program. Second, you will work as a Board to identify problems with the testing program and formulate specific recommendations for improvement. Problems and recommendations should be listed on the sheet provided. Finally, after you have prepared your problem statements and recommendations, each of the small groups will come together and report to the full group. The full group and members of the training team will then discuss each small group's recommendation. The time schedule for each phase of the exercise is listed below.

TIME SCHEDULE:

30 minutes	Review background information and clarify questions with consultant.
30 minutes	Identify problems and formulate recommendations.
15 minutes	Present group reports and discussion.

BACKGROUND INFORMATION

THE DISTRICT

The Brookfield School District is located on the fringe of a central city. It enrolls 15,000 students in 17 elementary and 6 high schools. The district serves students from middle to lower middle class families. The ethnic mix in the district is 47% white, 30% Black, 18% Hispanic, 3% Asian and 2% other ethnic groups. Over the past five years, the number of Black students in the district has remained about the same, while the number of white students has dropped and the number of Hispanic students has doubled. This trend is likely to continue in the coming years.

In addition to its basic tax supported program, the district participates in a variety of categorical programs, including both state and federal compensatory education, state and federal bilingual, state gifted, state and federal special education and a special state funded experimental reading program which operates in grades K-6. The district derives approximately 17% of its operating funds from these categorical programs.

Fifteen percent of the students in the district have been classified as limited or non-English speaking. The state mandates Bilingual programs for these students, and the Federal Office of Civil Rights has found the district to be out of compliance with the U.S. Supreme Court's ruling in Lau v. Nichols and is monitoring the district's efforts to provide adequate Bilingual programs.

Over the past year, parent and community concerns have focused on the poor performance of high school seniors on the district's competency test and declining district performance on statewide tests. Teacher concerns have centered around the proliferation of testing, and, as they perceive it, the lack of usefulness of the testing to their teaching.

THE DISTRICT'S TESTING PROGRAM

State Test: The state requires testing of all students in grades 3, 6 and 12 each year. A state developed test is used to assess student performance on the minimum state requirements. The state test is given in May and takes about one class period to administer. The state scores the test and reports results to the district and to the press. (The latest summary report is attached.)

and an expository paragraph), takes 2 class periods to administer, and is scored by each student's teacher on a pass/fail basis. In early June of each year, parents are sent letters informing them only as to whether the students passed or failed the competency tests. Teachers are given pass/fail lists for students in their classes. The Board receives summary pass/fail data for each high school and for the district as a whole. (The latest summary report is attached.)

Achievement Test: District testing--all students in grades 1 through 12 are given the Stanford Achievement Test in reading, mathematics and language in September and May of each year. The Stanford is a nationally normed, standardized test, and takes an average of three class periods to administer. (The test takes longer to administer in the lower grades.) Results of the September pre-testing are reported to teachers in early January. Results of the May post-testing are reported to the Board and to teachers in late October. (The latest district summary report is attached.)

CATEGORICAL PROGRAM TESTING

Compensatory Education: Federal and state requirements stipulate that achievement data for all students participating in compensatory education programs be reported by the district each year. Approximately 39% of the district's students participate in these programs. The district's Office of Compensatory Education administers the CAT, a nationally-normed, standardized test in reading, mathematics and language to all program participants in grades 1 through 9. (The program does not operate in grades 10 through 12.) The tests are administered in September and May of each year, and take an average of 2 class periods to administer. The district's Director of Compensatory Education feels the CAT is the most appropriate test to measure the progress of students in compensatory programs. Student gain scores on the CAT pre and post- testing are reported only to the appropriate state and Federal offices.

Bilingual Education: Federal and state requirements call for annual reporting of achievement data for all students participating in bilingual programs. Approximately 22% of the students in the district participate in these programs. The Stanford Achievement Test, an English language, nationally-normed, standardized test in reading, mathematics and language is administered to all students participating in bilingual programs in grades 1 through 12 in September and May of each year. Student gain scores on the Stanford are reported only to the appropriate state and Federal offices.

IQ Testing: IQ tests are used to place students in special education programs for the mentally retarded, and to place students in programs for the gifted. IQ tests are the sole determinant of placement in each program. Currently, programs for the mentally retarded include 35% Black students, 39% Hispanic students and 26% white students. Programs for the gifted enroll 12% Black students, 7% Hispanic students, and 81% white students.

Performance Testing for Students in Special Education Programs: Approximately 9% of the district's students are enrolled in special education programs. Of this 9%, approximately 4% are enrolled in learning handicapped programs for students with relatively minor learning disabilities or emotional problems. The district exempts all students enrolled in any special education programs from district-wide testing programs. Students in these programs are assessed through informal teacher-made tests only, and teacher judgments of their progress are summarized in the student's Individualized Education Program (IEP).

PROFILE OF SCHOOL DISTRICT PERFORMANCE

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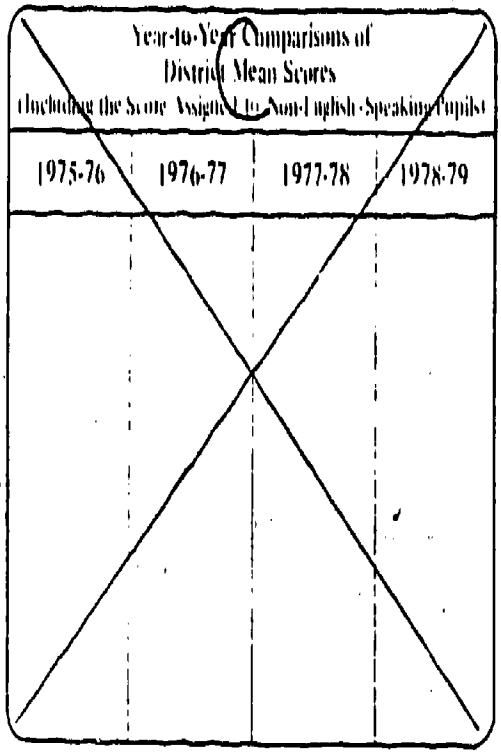
State Test Results

County

District Brookfield School District

Grade and Content Area Tested		1978-79 Scores	
		District Mean Score	Comparison Score Band
Grade 3	Reading	66.3	65.2-69.3
Grade 6	Reading	62.1	60.3-63.4
	Written Expression	59.7	59.8-62.1
	Spelling	59.6	58.4-64.3
	Mathematics	56.7	56.6-60.1
Grade 12	Reading	52.8	52.9-55.0
	Written Expression	53.9	51.7-54.9
	Spelling	56.2	54.4-57.1
	Mathematics	50.7	52.3-55.1

Year-to-Year Comparisons of District Mean Scores
(Including the Score Assigned to Non-English-Speaking Pupils)



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Background Factors Used to Develop Comparison Score Bands	District Value			
	1975-76	1976-77	1977-78	1978-79
Grade 3				
Entry Level Test	28.64	28.66	28.57	28.59
Socioeconomic Index	1.89	1.91	1.92	1.88
Percent AFDC	29.3	29.4	29.7	30.2
Percent LES/NES Pupils	—	17.9	18.7	19.2
Grade 6				
Socioeconomic Index	—	—	—	2.07
Percent AFDC	19.4	19.6	19.8	20.1
Percent LES/NES Pupils	—	15.8	16.2	16.4
Grade 12				
Parent Education Index	—	—	—	2.13
Percent AFDC	16.2	16.7	16.9	16.9

Additional Background Factors (Not Used to Develop Comparison Score Bands)	District Value
Average daily attendance	27,930
Percent minority students, total	53.0
Percent American Indian or Alaskan native	0.0
Percent Asian or Pacific Islander	3.0
Percent Filipino	2.0
Percent Black, not of Hispanic origin	18.0
Percent Hispanic	30.0
Average class size, elementary	28.5
Average class size, high school	27.6
Percent student mobility	
Grade 1 to 3	36.5
Grade 4 to 6	47.8
Grade 7 to 12	33.4
Grade 6 students: Where enrolled in grade 3	
Percent this district	48.5
Percent other California district	51.5

BROOKFIELD SCHOOL DISTRICT

Summary Report of Performance of 12th Graders on District Competency Tests

	Number of Students Tested	Number Passing	%	Number Failing	%
eading Test	1280	845	66	435	34
athematics Test	1302	730	56	572	44
riting Test	1320	1043	79	277	21

for Level II. Schools in seven states were included in the standardization sample. Norms were not stratified on the basis of race, ethnic-group membership, SES level, or geographic region. However, the selected groups were in no way restricted to any economic, intellectual, or racial population. The inclusion of handicapped children would approximate their normal incidence in the general population since there was no attempt to exclude them from norming procedures.

Reliability. The reliability coefficients reported in the manual are split-half reliabilities for each of the subtests by grade level. All reliability coefficients exceed .90. No test-retest reliabilities are reported.

Validity. The subtests of the WRAT sample selected aspects of reading, spelling and arithmetic curricula. The Reading subtest assesses skill in decoding isolated words. Similarly, the Spelling subtest assesses skill

*Adapted and reproduced by permission from the Wide Range Achievement Tests. Copyright 1978 Guidance Associates, Wilmington, DE. All rights reserved.

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1. Too much testing time	Consider test consolidation; (e.g., use Stanford or CAT--not both) annual rather than pre-post, testing, etc.
2. Inadequate, untimely feedback to teachers for use in instructional planning and diagnosis	Consult with teachers to modify reporting of test results to make information more useful; speed up return of test results
3. Inadequate, untimely reporting and interpretation of results to Board	Board should work with administration to specify the kinds of reports and interpretation it needs and the appropriate times for presentation of the information

only to state and federal offices gives teachers no information

- Language Proficiency Testing: Program placement based on a single test (LAB) and no other information is questionable; LAB is never readministered to check progress of students in the program

- IQ Testing: IQ test results inadequate as sole placement criterion; ratios of white and minority students in special education and gifted programs are out of balance

district, raise questions about its nature and purposes and recommend any changes you feel are warranted.

Developed by the Northwest Regional Educational Laboratory, Portland, Oregon, and the California Department of Education.

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State test: The state program testing all students in grades 3, 6 and 12 each year. A state developed test is used to assess student performance on the minimum state requirements. The state test is given in May and takes about one class period to administer. The state scores the test and reports results to the district and to the press. (The latest summary report is attached.)

Competency Test: The state requires competency tests in reading, mathematics and writing which, beginning next year, students will have to pass in order to receive a high school diploma. The state allows the district to develop or select its competency tests, and does not specify the grade level(s) at which they must be administered. Brookfield had a small group of teachers develop each of the 3 competency tests without outside assistance. The 3 tests are administered only in the 12th grade, in May of each year. The reading test has 120 objective questions and takes 3 class periods to administer; the mathematics test has 135 objective questions and takes 3 class periods to administer; and the writing test consists of 2 samples of student writing (a business letter

in these programs. The Stanford Achievement Test, an English language, nationally normed, standardized test in reading, mathematics and language is administered to all students participating in bilingual programs in grades 1 through 12 in September and May of each year. Student gain scores on the Stanford are reported only to the appropriate state and federal offices.

<u>Language Proficiency Testing</u>. The state requires that a language proficiency test be administered to identify limited and non-English speaking pupils for placement in bilingual programs. The district administers the Language Assessment Battery (LAB), a test of oral language proficiency, to all students new to the district whose primary home language is other than English. Students scoring below a specified cut-off point on the LAB are placed in bilingual programs. The LAB is not administered to any students currently placed in bilingual programs.

BROOKFIELD SCHOOL DISTRICT

Summary Report of Student Performance on the Stanford Achievement Test

Grade Tested	Reading Percentile	Mathematics Percentile	Language Percentile
1	67	59	69
2	69	62	73
3	73	66	77
4	70	66	72
5	66	61	69
6	60	57	64
7	68	64	68
8	63	59	63
9	61	57	60
10	60	54	61
11	63	57	62
12	59	54	59

IDENTIFICATION OF PROBLEMS AND RECOMMENDATIONS

FOR MODIFYING DISTRICT TESTING PROGRAM

(Remember--be as specific as possible in describing problems and making recommendations for changes.)

PROBLEMS	RECOMMENDATIONS
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	4. _____
6. _____	5. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____
11. _____	11. _____

WORKSHOP EVALUATION

Regardless of the audience, length of the workshop or nature of the material presented, the workshop should be evaluated. That evaluation can take any of a variety of forms. For example, the trainer might create a formal or an informal test of knowledge mastered by workshop participants, and/or the trainer might simply assemble a brief questionnaire on which participants can express their views and attitudes regarding the training experience. A sample of such a form is presented on the next page. This form was used for all project workshops, though it was modified slightly for each group. Remember to work with the cosponsor in planning the evaluation, so uniquely important evaluation questions can be identified.

EVALUATION FORM 1

PARTICIPANT REACTION

WORKSHOP ON TESTING IN THE SCHOOLS

	Poor		Fair		Excellent
What is your overall rating of the workshop?	1	2	3	4	5

What changes do you think we should make in the workshop? (For example, other points that should be covered, points that were unclear, or other styles of presentation.)

What did you like most about the workshop? Why?

Do you think others would find the workshop helpful? Why?

Sample Letters

This section contains hypothetical samples of:

- an initial letter to determine an association's interest in helping to sponsor a workshop
- a follow-up letter
- a letter confirming workshop plans
- several letters of invitation to potential participants
- a letter of appreciation

The letters actually used will vary depending on the specific conditions surrounding the workshops, but all of these types of letters are likely to be sent during the process of arranging the workshop. The actual letters would, of course, appear on appropriate letterhead.

Again, as with the planning checklists presented previously, we have included relatively detailed lists of points to be covered in these letters. And, as with the planning checklists, we provide this detail to help users to be sure of the inclusion of all important points.

Following are suggestions for preparing each type of letter.

INITIAL LETTER

1. Indicate the sponsor, trainers, when the sessions can be held, the workshop purpose.
2. Describe the qualifications of the trainers and what the participants will gain.
3. Indicate why the association's members may find the session valuable.
4. Indicate when and how the next contact will occur and the type of information that will be requested of them at that time.

FOLLOW-UP LETTER

1. Provide information requested by the potential sponsor. Most likely information will be requested on the details of the agenda and trainers' qualifications.

2. Provide information in as succinct a fashion as possible in a form that can be easily distributed to others in the organization. Usually several people are involved in the participation decision.

CONFIRMATION LETTER

1. List all responsibilities of each party.

2. In some situations, participants will share the costs of the workshop. The costs to be covered by the registration fee and financial responsibility in the event that enrollment is insufficient to cover cost must be agreed upon in advance of the workshop.

3. Ask for names of people in the organization who can be contacted to help refine the agenda.

INVITATION LETTER

1. The decision as to who sends the letter of invitation should be based primarily on what person or organization is likely to generate the best response.

2. Letters may go directly to anticipated attendees or to an intermediary person. For example, the invitation may go to the school board president, who will, in turn, contact school board members.

3. Provide a registration form or other means to determine the number of people who accept the invitation.

4. The letter of invitation can be used to generate information on the particular interests of the registrants and/or past exposure to testing issues. Thus, information can be solicited on the registration form and can be used to make final adjustments in the agenda.

THANK YOU LETTER

1. Express appreciation for assistance.

2. Send workshop evaluation summary.

3. Send any other materials requested by the association.

SAMPLE LETTER
Initial Contact

Date
Name
Address

Dear_____:

The Walker Educational Service Agency will be coordinating a series of invitational workshops and seminars on elementary and secondary achievement testing, beginning in February 1980. The purpose of these sessions is to help acquaint noneducators with the major issues involved in testing today, and to provide a forum through which their concerns and questions can be directly addressed by persons knowledgeable in the field.

The seminar staff are specialists in testing and measurement, highly experienced in the conduct of training and the presentation of information to diverse audiences. Specific issues to be addressed in each seminar include interpreting test scores, learning to use test results, ascertaining and coping with test bias. Participants will gain experience in problem solving, and will obtain useful reference materials.

Our preliminary search has identified your association as one whose members would likely share a concern regarding testing issues. We would very much like to determine if the Association of Local School Boards is planning to sponsor a conference between February and August, and if so, whether you would like to include such an invitational seminar on testing as part of your agenda for that conference. Through such an arrangement, a number of conference attendants might take advantage of the seminar without incurring additional costs.

Peggy Nesmer, our seminar coordinator, will contact you the week of November 22 to determine your association's level of interest and availability. If you are interested in purusing a cooperative effort, it would be most helpful to us to have your responses to the following questions when we phone you.

1. Are you planning a conference between February and August 1980?

2. Are there special interest groups within your organization that would especially benefit from participation? (If so, could you share a mailing list, or assist in inviting them?)

3. Would you prefer to include the seminar as part of your conference or as a pre-conference or post-conference training session?

4. What is your conference site?

5. Has your association participated in similar cooperative projects in the past?

6. What next steps must we take to finalize arrangements for the seminar in conjunction with your association?

These questions are intended simply as guidelines to help us begin planning. It may be that you will not immediately have answers to all questions—or that you will have questions for us. Be assured, we are eager to work cooperatively with you in negotiating arrangements that are fully satisfactory to you. Your comments and suggestions will be most welcome.

Thank you for your time in considering our request. We sincerely hope that you will wish to work with us on this project, and that your proposed 1980 conference schedule will facilitate that effort.

Sincerely,

SAMPLE LETTER
Follow-up

Date
Name
Address

Dear_____:

This letter is to follow up on our recent telephone conversation regarding the invitational testing seminar we are planning. Based on our conversation, it appears that the topics of most interest to your association members will be information on test purposes and uses, current legal, social, and educational issues surrounding minimum competency testing and cultural and social bias in tests, and how to analyze a district testing program.

Enclosed is a draft of a possible agenda as well as brief descriptions of the qualifications of the trainers. Background information on the Walker Education Service Agency is also enclosed.

If there is further information you need to make a decision about assisting in arranging workshops, please contact me.

I look forward to your response.

Sincerely,

SAMPLE LETTER
Confirmation

Date
Name
Address

Dear_____:

I was pleased to learn that the Association of Local School Boards has decided to cosponsor a one-day workshop on educational testing issues on Saturday, May 3, 1980. It is our understanding that you will make the room arrangements with the Broadway Hotel in Lincoln, Massachusetts. Your association will arrange to cover the cost of the luncheon and will send invitations to your membership.

The Walker Educational Service Agency will prepare all workshop materials and provide the trainers. We will cover all costs for materials and travel for our staff.

As we discussed in our telephone conversation, we would like to contact several members of your association who are likely to attend to obtain their reactions to our tentative agenda. Could you send me the names, addresses and phone numbers of people who would represent the various perspectives we are likely to find among attendees? I will need these by February 15.

I have enclosed a sample letter of invitation you may wish to adapt. Could you send this along with the letter of invitation asking people to indicate the topics of most interest to them and return it along with their registration.

Sincerely,

SAMPLE LETTER
Invitation

DATE:

TO: BOARD PRESIDENTS AND SUPERINTENDENTS*

FROM: Director, Association of Local School Boards

SUBJECT: SPECIAL SEMINAR ON TESTING

We would like to invite you to attend a unique and timely seminar on Educational Testing for School Board Members. The seminar will be held on Saturday, May 3, 1980 from 9:00 a.m. to 4:00 p.m. at the Broadway Hotel in Lincoln. The seminar is being coordinated by Walker Educational Service Agency. It will be conducted by selected staff from the Walker Educational Service Agency and the Department of Education. The presenters are specialists in testing and measurement and have considerable experience in presenting information about key testing issues to groups such as ours. It is being coordinated locally by the Association of Local School Boards.

The seminar offers you an excellent opportunity to get up-to-date information on current and controversial issues in testing. Among the topics covered will be:

- Minimum Competency
- Use of Test Results
- "Truth in Testing"
- Future Trends in Testing
- IQ Testing
- Legal Issues in Testing
- Teacher Competency Testing
- Characteristics of Good Testing Programs

Presentations will be geared directly to the needs and interest of Massachusetts school board members.

There is no fee for the seminar. However, there will be a small charge of $10 to cover the direct costs incurred by the Association of Local School Boards in offering the seminar.

*Please share with all board members.

SEMINAR ON TESTING

Enclosed is a check for $_____ (at $_____ per person) to cover _____ registrations for the Seminar on Testing on May 3, 1980.

Please make check payable to (name of association_____) and mail to (address_____) before April 15. Fee covers lunch and other costs.

DISTRICT_____COUNTY_____

Name_____Name_____

Name_____Name_____

SAMPLE LETTER
Invitation for Legislators

Date
Name
Address

Dear_____:

The House of Representatives' Education Committee, in conjunction with the consulting firm of Walker Educational Service Agency is hosting a unique and timely Seminar on Educational Testing for selected members of the Legislature.

Walker Educational Service Agency is coordinating a series of invitational testing seminars. The seminar will be conducted by selected staff of the Walker Educational Service Agency, and the Department of Education. These presenters are specialists in testing and measurement, highly experienced in the conduct of training and the presentation of information to diverse audiences.

This letter serves to invite you to attend the seminar to be held on Wednesday, June 18, 1980, beginning with dinner at 6:00 p.m. in the Ocean Room of the Broadmore Hotel, 50 South Sixth Street, in downtown Centerville. If you care to stop by earlier to get acquainted, there will be a no-host bar available in the dining area beginning at 5:30 p.m. The seminar presentations will begin at 7:30 p.m. and are expected to last until approximately 10:00 p.m.

There is no fee for the seminar. However, it would be greatly appreciated if you would please call my secretary, Jack Beecher, at 666-5500 no later than Thursday, June 12, to let me know if you are going to attend the dinner and seminar.

I hope you will be able to join us on June 18. If you have any questions about the seminar, please feel free to call my office.

Sincerely,

SAMPLE LETTER
Invitation

Date
Name
Address

Dear_____:

We would like to invite you to attend a unique and timely Seminar on Educational Testing for School Board Members and Journalists. The seminar will be held on Saturday, June 12, from 8:45 a.m. to 3:00 p.m. at the Airport Hotel at the Louisville Airport. It will be presented by the Walker Educational Service Agency. Seminar presenters will include (list names_____) who are specialists in educational testing.

The seminar offers you an excellent opportunity to get up-to-date information on current and controversial issues in testing. Among the topics covered will be:

- Minimum Comptency Testing
- IQ Testing
- Use of Test Results
- Characteristics of Good Testing Programs
- Legal Issues in Testing
- "Truth in Testing"
- Teacher Competency Testing
- Future Trends in Testing

Presentations will be geared directly to the needs and interests of school board members and journalists.

There is no fee for the seminar. However, enrollment will be limited, so if you are interested in attending, please return the enclosed registration card no later than June 20.

We hope you will be able to join us on July 12. If you have any questions about the seminar, please contact us at (555) 555-0000.

Sincerely,

SAMPLE LETTER
Appreciation

Date
Name
Address

Dear_____:

Thank you for your invaluable assistance in arranging the seminar on testing. Our trainers were very pleased with the active participation and interest expressed by the attendees.

I have enclosed a copy of the summary of the workshop evaluation. It may be useful to you as you plan future training sessions for your membership.

If we can be of assistance to you in the future, do call.

Sincerely,

Resources

This section contains references on various sources of information on topics covered in the workshops. Included are:

1. Annotated bibliographies on the following topics
    - Test Purpose and Uses
    - Achievement Test Score Decline
    - Truth in Testing
    - IQ Testing
    - Cultural Bias
    - Minimum Competency Testing
    - Teacher Testing and Evaluation
2. Lists of
    - commonly used published tests
    - major test publishers
    - professional associations addressing educational testing issues
    - regional educational laboratories and centers
    - state department of education assessment or evaluation offices

These represent excellent sources of more detailed information on tests and testing. However, they are not intended to reference all relevant information sources. Rather, they provide a starting point. Trainers are encouraged to add references and other information sources as they are identified.

ANNOTATED BIBLIOGRAPHY*

TEST PURPOSES AND USES

Anderson, B.L., Stiggins, R.J., and Hiscox, S.B. Guidelines for selecting basic skills and life skills tests. Portland, OR: Northwest Regional Educational Laboratory, 1980.

This short guide designed for teachers and administrators discusses test purposes and characteristics to consider when selecting tests. Lists of currently available basic skills and life skills tests are provided along with the names and addresses of test publishers.

Brown, F.G. Guidelines for test use: A commentary on the standard for educational and psychological tests. Washington, D.C.: National Council on Measurement in Education, 1980.

This book is designed for teachers, counselors, school psychologists, administrators, parents and others concerned with educational measurement. It is a nontechnical explanation of the Standards for Educational and Psychological Tests published by the American Psychological Association..

Burrill, L.E. How a standardized achievement test is built, test service notebook 125. New York, NY: The Psychological Corporation.

The steps described are typical of the way tests are built by many major test publishers. Other short articles on related topics are available from The Psychological Corporation, New York, NY 10017.

Feder, B. The complete guide to taking tests. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1979.

This book is written for test takers who want to become more familiar with tests and testing.

Parents and testing. Washington, D.C.: National Education Association, 1979.

This guide provides parents with information on how they should and can be involved with schools' testing programs. It also gives the National Education Association position on student testing.

Rebell, M.A., and Block, A.R. Competence assessment and the courts: An overview of the state of the law. Boston, MA: McBer, 1980.

This study looks at the implication of legal cases for a wide variety of educational testing issues, including certification, IQ tests, ability tracking, and graduate school admissions tests.

*The bibliography does not include any of the textbooks commonly used in measurement courses. It is assumed that the trainer is familiar with these.

Some things parents should know about testing, test service notebook 34. The Psychological Corporation, (undated).

This short paper is one of a series providing information on key testing questions.

Teachers and testing. Washington, D.C.: National Education Association, 1979.

Teachers are provided with general informaton on how and why tests are used as well as the strengths and weaknesses of tests. The National Education Association resolutions relating to testing issues are given.

ACHIEVEMENT TEST SCORE DECLINE

College Entrance Examination Board. On further examination. New York, NY: 1977.

A monograph reporting the results of the deliberations of the CEEB Advisory Panel on the Scholastic Aptitude Test score decline. Potential explanations related to school and nonschool factors are examined. Conclusions are presented regarding multiple causes.

Harnischfeger, A., and Wiley, D.E. Achievement test score decline: Do we need to worry? Monograph of CEMREL, Inc., St. Louis, MI, 1976.

A 160-page monograph reviewing several potential explanations for declining academic achievement test scores. Data are presented in association with the potential explanations presented and conclusions are drawn regarding each explanation. An excellent summary of conclusions is presented.

Munday, L. "Declining admissions test scores," ACT Research, Report #71, Iowa City, IA: The American College Testing Program, 1976.

Several indices of declining academic achievement are summarized. However, the principle focus is on declining ACT Assessment Program test scores. Correlates of score decline are identified and potential explanations are explored.

TRUTH IN TESTING

Brown, R. Searching for the truth in "truth in testing" legislation: A background report. Denver, CO: Education Commission of the States, 1980.

This is a readable summary of the background and current issues in truth in testing. It also summarizes relevant pending federal and state legislation.

Brown, R. "Searching for the truth about truth in testing." Compact, Winter, 1980, 7-11.

This article is a much abbreviated summary of the issues presented in the background report listed above.

Educational Testing Service. Test scores and family income. Princeton, NJ, February 1980.

Educational Testing Service. Test use and validity. Princeton, NJ, February 1980.

These two ETS reports were developed in response to the Nairn report listed below.

Nairn, A. and Associates. The reign of ETS: The corporation makes up minds. Washington, D.C., 1980.

The Nairn report on ETS was sponsored by Ralph Nader and offers a strong indictment of many of ETS' practices.

IQ TESTING

Larry P. v. Riles, No. C71-2270 RFP (N.D. Cal. Decision 10/16/79).

Readers who are interested in pursuing the issues raised in the Larry P. decision are urged to obtain a transcript of the decision and read it in its entirety. The decision is readable, to the point, and appropriate for a lay reader.

"Notes on Larry P." In Footnotes, the Newsletter of the Law and Education Center, Education Commission of the States, Denver, CO, Vol. 1, No. 2, Spring 1980.

Parents in Action on Special Education v. Hannon, No. 74C3586, N.D. Ill., Decision 7/7/80.

The court's ruling that IQ tests can be used in the Chicago schools is justified with a detailed analysis of the test in question.

CULTURAL BIAS

Burrill, L.E. and Wilson, R. "Fairness and the matter of bias," Test Service Notebook 36. New York, NY: The Psychological Corporation, 1980.

This article succintly covers major issues in racial bias, item bias and bias in selection and prediction.

Burrill, L.E. "Statistical evidence of potential bias in items and tests assessing current educational status." Paper presented at the Fourteenth Annual Southeastern Conference on Measurement in Education, 1975.

This paper describes various definitions and interpretations of bias and provides a useful reference list.

Sheppard, L., Camilli, G., and Averill, M. "Comparison of six procedures for detecting test item bias using internal and external ability criteria." A paper presented to the National Council on Measurement in Education Annual Meeting, Boston, 1980.

This paper not only provides a thorough comparison of procedures for detecting test item bias, but also contains an extensive reference list to the literature on test item bias.

MINIMUM COMPETENCY TESTING

Bunda, M.A., and Sanders, J.R. (Eds.) Practices and problems in competency based measurement. Washington, D.C.: National Council on Measurement in Education, 1979.

This 144 page book provides articles on the key issues in competency based testing.

Debra P. v. Turlington. Footnotes, (newsletter of the Law and Education Center, Education Commission of the States, Denver, CO) Vol. 1, No. 1, November 1979.

This newsletter provides a short readable review of the key issues in the Debra P. v. Turlington case.

Gorth, W.P. and Perkins, M.R. A study of minimum competency testing programs: Final summary and analysis report. Amherst, MA: National Evaluation Systems, 1979.

This report summarizes the current status of the implementation of minimum competency testing across the country.

McClung, M.S. Competency testing programs: Legal and educational issues. Fordham Law Review, 1979, 47, 651-711.

Merle McClung's work represents a comprehensive analysis of legal issues in minimum competency testing that is available. This article is a review of legal issues which incorporates potential implications of the Debra P. v. Turlington decision.

Rosewater, A. Minimum competency testing programs and handicapped students: Perspectives on policy and practice. Washington, D.C.: George Washington University Institute for Educational Leadership, 1979.

This paper presents a review of policy and practical problems involved in implementing minimum competency testing programs for the handicapped.

Shoemaker, J.S. Minimum competency testing: Implications for instruction. Washington, D.C.: National Institute of Education, January 1979.

This paper presents a discussion of design considerations in the development of minimum competency testing programs that will maximize the utility of the program for instructional uses.

TEACHER TESTING AND EVALUATION

The Psychological Corporation. Summaries of court decisions on employment testing, 1968-1977. New York, NY, 1978.

This book summarizes court decisions on employment testing in both the private and public sector. It is not limited to educational personnel.

Vlaanderen, R. Trends in competency based teacher certification. Denver, CO: Education Commission of the States, March 1980.

This paper presents a summary of the current status of teacher competency testing.

LIST OF COMMONLY USED TESTS[1]

MULTISUBJECT ACHIEVEMENT BATTERIES

Tests and Subscores	Grade Level(s)	Publication Date	Publisher[3]
Adult Basic Learning Examination (ABLE) Reading Arithmetic Spelling Vocabulary	Adult	1974	Psych. Corp.
Adult Performance Level Survey (APLS) Reading Computation Writing Identifying Facts and Terms Problem Solving	9-Adult	1976	ACT
Alaska Instructional Diagnostic System (AIDS) Reading Mathematics	1-8	1977	SRRC
American School Achievement Tests, Revised Edition (ASAT) Reading Arithmetic Language Spelling Social Studies Science	1-9	1975	BMC
Basic Educational Skills Inventory (BESI) Reading Mathematics	Kinder-garten-6	1973	Winch
Brigance Diagnostic Inventory of Basic Skills (IBS) Reading Mathematics Language Arts Readiness	Kinder-garten-6	1976	CAI

[1] From Anderson, B.L., Stiggins, R.J., and Hiscox, S. Guidelines for selecting basic skills and life skills tests. Portland, OR: Northwest Regional Educational Laboratory, Portland, OR, 1980.

[2] Note: Not all subtests are available at all grade levels

[3] Names, addresses and phone numbers attached

MULTISUBJECT ACHIEVEMENT BATTERIES

Tests and Subscores	Grade Level(s)	Publication Date	Publisher
California Achievement Tests Forms C & D (CAT)	Kindergarten-12	1977	CTB
Reading			
Mathematics			
Language			
Spelling			
Reference Skills			
California Assessment Program Survey of Basic Skills	12	1974	CSDE
Reading			
Mathematics			
Written Expression			
Spelling			
CIRCUS, Levels C & D	1-3	1979	AW
Reading			
Mathematics			
Writing Skills			
Listening			
Phonetic Analysis			
Oral Reading			
Say and Tell			
Do You Know			
Think It Through			
Things I Like			
Educational Environmental Questionnaire			
Comprehensive Tests of Basic Skills Expanded Edition Form S & T (CTBS)	Kindergarten-12	1976	CTBS
Reading			
Mathematics			
Language Arts			
Reference Skills			
Science			
Social Studies			
Criterion test of Basic Skills	Kindergarten-8	1976	ATP
Reading			
Arithmetic			
Diagnostic Skills Battery	1-8	1976	STS
Reading			
Mathematics			
Language Arts			

MULTISUBJECT ACHIEVEMENT BATTERIES

Tests and Subscores	Grade Level(s)	Publication Date	Publisher
Iowa Tests of Basic Skills Multi-level Edition Forms 7 & 8 Reading Comprehension Mathematics Skills Language Skills Work-Study Skills Vocabulary	3-9	1978	HM
Iowa Tests of Educational Development: SRA Assessment Survey Reading Mathematics Language Arts Social Studies Science	9-12	1974	SRA
Metropolitan Achievement Tests (METRO'78) Reading Comprehension Mathematics Language Social Studies Science	Kinder-garten-12	1978	Psych. Corp.
National Educational Development Tests Mathematics Usage English Usage Social Studies Reading Nature Sciences Reading Word Usage	7-10	1974	SRA
Primary Survey Tests Reading Mathematics Language Spelling	2-3	1973	SF
Scholastic Testing Service Educational Development Series Scholastic Tests Reading Mathematics English Social Studies Science Solving Everyday Problems USA in the World	2-12	1976	STS

MULTISUBJECT ACHIEVEMENT BATTERIES

Tests and Subscores	Grade Level(s)	Publication Date	Publisher
Nonverbal Ability			
Verbal Ability			
School Interests			
School Plans			
Career Plans			
Science Research Associates Achievement Series (ACH) Forms 1 & 2	Kindergarten-12	1978	SRA
Reading			
Mathematics			
Language Arts			
Social Studies			
Science			
Reference Materials			
Applied Skills			
Science Research Associates High School Placement	9	1973	SRA
Reading			
Arithmetic or Modern Math			
Language Arts			
Social Studies			
Science			
Science Research Associates Norm Referenced/Criterion Referenced Testing Program	4-10	1977	SRA
Reading			
Mathematics			
Sequential Tests of Educational Progress: Series III Levels E-J***	1-12	1979	AW
Reading			
Mathematics Computation			
Mathematics Basic Concepts			
Writing Skills			
Social Studies			
Science			
Study Skills/Listening			
Goal Orientation Index			
SOI Learning Abilities Test	1-11	1975	SOI
Reading			
Arithmetic			

***Step III is integrated with CIRCUS C & D for the beginning of grade one through the beginning of grade three.

MULTISUBJECT ACHIEVEMENT BATTERIES

Tests and Subscores	Grade Level(s)	Publication Date	Publisher
Stanford Achievement Test 1973 Edition (SAT) Reading Mathematics Social Studies Science Listening Comprehension Spelling	1-9	1973	Psych. Corp.
Stanford Test of Academic Skills (TASK) Reading Mathematics English	8-Adult	1975	Psych. Corp.
Tests of Adult Basic Education (TABE) Reading Mathematics Language Arts	Adult	1976	CTB
Tests of Achievement and Proficiency, Form T (TAP) Reading Comprehension Mathematics Written Expression Social Studies Science Using Sources of Information Applied Proficiency Skills	9-12	1978	RS
United States Employment Service Basic Occupational Literacy Test (USES BOLT) Reading Vocabulary Reading Comprehension Arithmetic Computation Arithmetic Reasoning	Adult	1974	USDL
Wide Range Achievement Test Revised Edition (WRAT) Reading Arithmetic Spelling	Kindergarten-Adult	1978	Jastak

MATHEMATICS TESTS

Test-	Grade Level(s)	Publication Date	Publisher
Analysis of Skills: Mathematics (ASK: Mathematics)	1-8	1976	STS
Assessment of Skills in Computation (ASC)	7-9	1978	CTB
Basic Arithmetic Skill Evaluation	1-9	1974	IILC
Diagnosis: An Instructional Aid: Mathematics	1-6	1974	SRA
Diagnostic Mathematics Inventory (DMI) (Revision of the PMI)	1-8	1975	CTB
Diagnostic Screening Test: Math (DSTM)	1-11	1979	SC
ERB Modern Arithmetic Test	5-6	1971	ERB
Fountain Valley Teacher Support System in Mathematics (FVTSS-M)	K-8	1974	Zweig
Individualized Criterion Referenced Testing: Math (ICRTM)	1-8	1977	EDC
Individual Pupil Monitoring System-Mathematics (IPMS)	1-8	1973	RS
Keymath Diagnostic Arithmetic Test	L-6	1976	AGS
Mastery: An Evaluation Tool: Mathematics	K-9	1976	SRA
Mathematics: IOX Objectives-Based Tests	K-9	1976	IOX
Minimum Essentials for Modern Math	6-8	1971	Hayes
Objectives Referenced Bank of Items and Tests: Mathematics (ORBIT:M)	K-Adult	1975	CTB
Stanford Diagnostic Mathematics Test (SDMT)	1-Adult	1976	Psych. Corp.
Steenburgen Quick Math Screening Test	1-6	1978	ATP
Tests of Achievement in Basic Skills: Mathematics (TABS:M)	K-12	1976	EdITS

LIFE SKILLS TESTS

Test-	Grade Level(s)	Publication Date	Publisher
Adult Performance Level Functional Literacy Test	9-Adult	1978	ACT
Assessment of Skills in Computation (ASC)	7-9	1978	CTB
Everyday Skills Tests (EDST)	6-12	1975	CTB
IOX Basic Skills Test	9-12	1978	IOX
NM Consumer Mathematics Test	9-12	1973	NMS
Reading/Everyday Activities in Life (R/EAL)	9-Adult	1972	CAL-P
SRA Coping Skills: A Survey plus Activities	7-8 & Adult	1979	SRA
SRA Survival SKills	6-Adult	1976	SRA
STS Educational Development Series: Scholastic Tests	2-12	1976	STS
Senior High Assessment of Reading Performance Forms A, B, C (SHARP)	10-12	1978	CTB
Stories about Real-Life Problems	5-8	--	NIU
Test of Consumer Competencies	8-12	1976	STS
Test of Everyday Writing Skills (TEWS)	9-12	1978	CTB
Test of Performance in Computational Skills (TOPICS)	9-12	1978	CTB
Wisconsin Test of Adult Basic Education	Adult	--	RFD

LANGUAGE ARTS TESTS

Test-	Grade Level(s)	Publication Date	Publisher
Analysis of Skills: Language Arts (ASK: Language Arts	2-8	1976	STS
Diagnostic Screening Test: Language	K-Adult	1977	SC
Language Arts: IOX Objectives Based Tests	K-6	1974	IOX
Language Arts: Minnesota High School Achievement Examinations	7-12	1970	AGS
Writing Test: McGraw-Hill Basic Skills System	11-12, Adults	1970	MHBC

READING TESTS

Test-	Grade Level(s)	Publication Date	Publisher
Analysis of Skills: Reading	1-8	1976	STS
Analytical Reading Inventory	2-9	1977	Merrill
Clarke Reading Self-Assessment Inventory	11-Adult	1978	ATP
Criterion Referenced: Reading Tactics	7-12	1977	SF
Diagnostic Reading Scales	1-12	1975	CTB
Diagnostic Screening Test: Reading	1-12	1979	SC
Diagnosis: An Instructional Aid: Reading	1-6	1974	SRA
Diagnostic Reading Test: Pupil Progress Series	1-8	1970	STS
Fountain Valley Teacher Support System in Reading (FVTSS-R)	1-6	175	Zweig
Fountain Valley Teacher Support System in Secondary Reading	7-12	1976	Zweig
Gates-McGinitie Reading Tests, Second Edition	1-12	1978	RS
Gates-McGinitie Reading Tests, First Edition	1-12	1970	RS
Individual Pupil Monitoring System-Reading (IPMS-Reading)	1-6	1974	RS
Individualized Criterion Referenced Testing: Reading (ICRTR)	K-8	1976	EDC
Mastery: An Evaluation Tool: Reading (SOBAR)	K-9	1976	SRA
McCarthy Individualized Diagnostic Reading Inventory-Revised	2-Adult	--	EPS
McGrath Diagnostic Reading Test	1-13	1976	McGrath
The McGuire-Bumpus Diagnostic Comprehension Test (MBDCT)	2-6	1972	Croft
Nelson-Denny Reading Test Forms C & D (NDRT)	9-12	1976	RS
Objectives-Referenced Bank of Items and Tests: Reading and Communication Skills (ORBIT: RCS)	K-Adult	1975	CTB
Nelson Reading Skills	3-9	1977	RS
Power Reading Survey Test	1-12	1975	BFA
Prescriptive Reading Inventory	K-6	1977	CTB
Ransom Program Reading Tests	K-6	1975	AW
Reading Inventory Probe I	1-2	1973	ATC
Reading: IOX Objectives-Based Tests	K-6	1976	IOX
Reading Skills Diagnostic Test	2-8	1971	BP
Reading Skills Competency Test	K-7	1979	CARE
Reading Unlimited Skills Assessment Tests	1-6	1976	SF
SRA Reading Index	9-12 & Adult	1974	SRA
Skills Monitoring System: Reading (SMSR)	3-5	1975	Psych. Corp.
Stanford Diagnostic Reading Test	1-13	1976	Psych. Corp.
Wisconsin Design for Reading Skill Development	K-6	1972	NCS
Woodcock Reading Mastery Tests (WRMT)	K-12	1973	AGS

PUBLISHERS OF TESTS IDENTIFIED ON LIST OF COMMONLY USED TESTS

ACT	The American College Testing Program P.O. Box 168 Iowa City, IA 52240 (319) 356-3711
AGS	American Guidance Service, Inc. Publisher's Bldg. Circle Pines, MN 55014 (612) 786-4343
ATP	Academic Therapy Publications 28 Commercial Blvd. Novato, CA 94947 (415) 883-3314
AW	Addison-Wesley Publishing Co., Inc. Jacob Way Reading, MA 01867 (617) 944-3700
BFA	BFA Educational Media 2211 Michigan Avenue P.O. Box 1795 Santa Monica, CA 90406 (213) 829-2901
BMC	Bobbs Merrill Co., Inc. 4300 West 62nd Street Indianapolis, IN 46268 (317) 298-5400
CAI	Curriculum Associates, Inc. 5 Esquire Rd. N. Billerica, MA 01862 (617) 935-8410
CAL-P	CAL Press, Inc. 76 Madison Avenue New York, NY 10016 (212) 685-0892
CARE	The Center for Applied Research in Education, Inc. Rt. 59 West Nyack, NY 10994 (914) 358-8991
Croft	Croft Incorporated 4922 Harford Road Baltimore, MD 21214 (301) 254-5082

PUBLISHERS OF TESTS IDENTIFIED ON LIST OF COMMONLY USED TESTS

CSDE	California State Dept. of Education 721 Capitol Mall Sacramento, CA 95814 (916) 445-4688
CTB	CTB/McGraw Hill Del Monte Research Park Monterey, CA 93940 (409) 649-9400
EDC	Educational Development Corporation P.O. Box 45663 Tulsa, OK 74145 (918) 622-4522
EdITS	EdITS/Educational and Industrial Testing Service P.O. Box 7234 San Diego, CA 92107 (714) 222-1666
ERB	Educational Records Bureau Educational Testing Service Box 619 Princeton, NJ 08540 (609) 921-9000
EPS	Educators Publishing Service 75 Moulton St. Cambridge, MA 02138 (617) 547-6706
HAYES	Hayes Educational Laboratory 7040 North Portsmouth Ave. Portland, OR 97203 (503) 285-3745
IILC	Imperial International Learning Corp. Box 548 Kankakee, IL 60901 (815) 933-7735
IOX	Instructional Objectives Exchange Box 24095 Los Angeles, CA 90024 (213) 474-4531
Jastak	Jastak Associates, Inc. 1526 Gilpin Ave. Wilmington, DE 19806 (302) 652-4990

PUBLISHERS OF TESTS IDENTIFIED ON LIST OF COMMONLY USED TESTS

McGrath	McGrath Publishing Co. P.O. Box 9001 Wilmington, NC 28402 (919) 763-3757
Merrill	Charles E. Merrill Publishing Co. 1300 Alum Creek Drive Columbus, OH 43216 (614) 258-8441
MHBC	McGraw Hill Book Co. 1221 Ave. of the Americas New York, NY 10020 (212) 997-1221
NCS	NCS Interpretive Scoring Systems 4401 West 76th St. Minneapolis, MN 55435 (800) 328-6290
NIU	Northern Illinois University Alan M. Voelker Curriculum and Instruction Dekalb, IL 60115 (815) 753-1000
NMS	New Mexico State Dept. of Education Monitor Education Bldg. State Capitol Santa Fe, NM 87501 (505) 827-2429
Psych. Corp.	The Psychological Corporation 304 E. 45th Street New York, NY 10017 (212) 888-3500
RFD	Rural Family Development Program University Extension University of Wisconsin P.O. Box 1379 Madison, WI 53701 (608) 262-1234
RS	The Riverside Publishing Company 1919 South Highland LAvenue Lombard, IL 60148 (312) 629-9700

PUBLISHERS OF TESTS IDENTIFIED ON LIST OF COMMONLY USED TESTS

SC	Stoelting Co. 1350 S. Kostner Chicago, IL 60623 (312) 522-4500
SRRC	Southwest Regional Resource Center 127 South Franklin Juneau, AK 99801 (907) 586-6806
SF	Scott Foresman & Co. 1900 East Lake Ave. Glenview, IL 60025 (312) 729-3000
SOI	SOI Institute 214 Main St. El Segundo, CA 90245 (213) 322-5995
SRA	Science Research Associates, Inc. 155 N. Wacker Dr. Chicago, IL 60606 (800) 621-0664
STS	Scholastic Testing Service, Inc. 480 Meyer Road Bensenville, IL 60106 (312) 766-7150
TCP	Teachers College Press Teachers College 525 West 120th St. New York, NY 10027 (212) 678-3929
USDL	United States Dept. of Labor Bureau of Labor Statistics 1515 Broadway New York, NY 10036 (212) 399-5405
Winch	B.L. Winch and Associates 45 Hitching Post Dr. Rolling Hills Estates, CA 90274 (213) 547-1240
Zweig	Richard L. Zweig Associates, Inc. 20800 Beach Blvd. Huntington Beach, CA 92648 (714) 536-8877

PROFESSIONAL ASSOCIATIONS

American Educational Research Association
1126 16th Street, N.W.
Washington, D.C. 20006

National Council on Measurement in Education
1230 17th Street, N.W.
Washington, D.C. 20036

American Psychological Association
1200 17th Street, N.W.
Washington, D.C. 20036

REGIONAL LABORATORIES AND CENTERS

Appalachia Educational Laboratory, Inc.
P.O. Box 1348
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CEMREL, Inc.
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